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ABSTRACT

A design for a nationwide system of library statistics is provided along with specific recommendations for its structure and development. The proposed system depends upon a much more active role of the states and upon the input of research, interaction of advisory groups, inservice training, and relatively small amounts of money at strategic points along the way. An important factor of the system is the formation of an advisory group on library statistics within the U.S. Office of Education which would aid in the implementation of the proposed system, and aid in the ultimate formation of a data bank system. In the long range, the statistical needs of all users of library data can best be satisfied by an electronic National Data Bank System. This data bank is absolutely dependent upon the standardization of terminology; the systematic collecting and editing of data; the interlocking, coordinated efforts of many advisory groups; the design of an electronic system by highly skilled professionals; and possibly a consortium of Federal, State and private agencies. (MF)

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PLANNING FOR A NATIONWIDE SYSTEM OF LIBRARY STATISTICS

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DAVID C. PALMER

ALA Project Director and General Editor

Final report of the Library Administration Division of the American Library Association, prepared under contracts with the National Center for Educational Statistics of the U.S. Office of Education and submitted in May 1970.

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The National Center for Educational Statistics has reviewed the manuscript at the various stages of its development. Some of the recommendations made by the ALA project have already influenced NCES's program and planning. Other recommendations are being given careful consideration.

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FOREWORD

Historically, there has been a long series of discussions, conferences, position papers, and journal articles over the years on the subject of the collection of adequate library statistics. These are explained in detail in some of the papers. The publication of *Library Statistics: A Handbook of Concepts, Definitions, and Terminology* by the ALA Statistics Coordinating Project of 1963-64 represented, however, the first detailed, codified, and widely disseminated standardization of terminology and specific listing of data items by type of library. Although one of the objectives of this project had been the development of a nationwide plan for the collection of library statistics as a follow-on to the completion of the handbook, the lack of adequate funding forced cancellation of this activity.

In 1966, a National Conference on Library Statistics was cosponsored by ALA and USOE. At this conference, the major topics of discussion were needs for and uses of library statistics and proposed methods of establishing an efficient nationwide data-collection system. It was this conference that stimulated the Library Administration Division of the American Library Association to submit its proposal for the current project to the U.S. Office of Education.

In its present form, the publication contains the considered opinions and recommendations of a relatively small group of expert librarians. However, it also represents the distillation of several decades of work by a much larger number of librarians, and their contribution to this ultimate product is gratefully acknowledged. Special mention should also be made of the contribution of the steering committee to the project during its various phases. The members of this committee—Ruth Frame, David Palmer, Frank Schick, Alphonse Trezza, and Joel Williams—held meetings periodically during the entire term of the project to evaluate progress and review ongoing activities.

Finally, our appreciation is extended to all of those librarians, too numerous to list specifically by name, who willingly gave of their time to review the papers at special meetings and at the midwinter and annual conferences of the American Library Association.

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Chapter I

SUMMARY OF MAJOR RECOMMENDATIONS

1. Planning for standardized, meaningful, and even minimal library statistics must continue—indefinitely. Other research efforts, especially in the areas of management systems, data bank development, user data, and impact of library services are needed and should be coordinated with these guidelines.

2. Efforts to standardize terminology must be continued and intensified. Definitions found in *Library Statistics: A Handbook of Concepts, Definitions, and Terminology* should be reviewed, refined, and expanded. While this is primarily the obligation of the profession at large, the terminology should be promulgated by the U.S. Government and revised as needed. Continued recognition by the United States of America Standards Institute, and its cooperation, will contribute to the widest acceptance of this standardized terminology.

3. The National Center for Educational Statistics (NCES) should be assisted by an advisory committee which represents fairly the numerous governmental, professional, and commercial interests in library statistics. This advisory input into planning and operating a national library statistics system should be augmented and supplemented by the National Commission on Libraries and Information Science and by State advisory committees. The Statistics Coordinating Committee of the American Library Association should continue its strong advisory and promotional roles.

4. A program of shared responsibility between NCES and the States in nationwide (as well as State) library statistical coverage is essential and should be highly defined, coordinated, and regularized. NCES will have to take a close look at the library functions at the State level to determine which agencies are responsible for which functions.

5. Federal financial assistance to the States to enable them to carry out their responsibilities in the foregoing system is mandatory. This assistance should be designed to both stimulate State investment in this area and to be used as a tool for regularization and compliance.

6. Determination of library universes should take place at the State level according to definitions supplied by NCES.

7. Training programs, with appropriate instructors, manuals, meetings, etc., are essential to the national statistics program, both at the State and local levels, for general understanding, accuracy of returns, and compliance.

8. States should be encouraged to collect data beyond Federal and national needs and should distribute these data widely. They should serve as true information centers on libraries and library conditions in the respective States.

9. Continued national planning should incorporate appropriate steps toward the formation of a national data bank system for library statistics. Such a system should allow for retrieval of specialized library data at cost.

Chapter II

THE PROJECT

Almost a century has passed since the first American Library Association Conference in 1876 took special note of the problems of library statistics. One of the most comprehensive reports on libraries ever compiled was published that year. Entitled *Public Libraries in the United States,* it was produced by the Bureau of Education (now the U.S. Office of Education), itself only 9 years old at the time. As John Lorenz points out in his paper in appendix A: "If we knew as much about libraries today as was compiled and published in 1876, we would be in a much better position to plan for future library development." But the fact is that we have not yet achieved even the most elemental body of recurring statistical data about our public libraries, much less those for school, college, university, and special libraries. In addition, we know relatively little about the needs and uses for such data.

The present effort to formulate planning for a nationwide library data system is the latest in the profession's long and valiant struggle to standardize, codify, and regularize reporting techniques for the Nation's libraries of all types. Standardized terminology and definitions, common methods of counting, regularized coverage and periodicity, and assigned levels of responsibility for State and national reporting are reasonable goals. But they require basic agreement throughout the profession, leadership at authoritative levels, and most importantly, a review mechanism to enable response to the forces of change.

When we recall the developments over the last hundred years of librarianship, it is small wonder that many of the efforts attempted have been abortive, or short lived at best, for the following reasons:

1. Libraries have proliferated and have taken on different characteristics.

2. The relationships of libraries to each other and to emerging systems and networks have undergone a rapid evolution which promises to accelerate even further.

3. Library materials have branched far beyond the conventional printed word, and this diversity is matched with unprecedented output.

4. Funding patterns for library service are now much more complex, and the responsibilities of local, State, and Federal governments in their support is shifting.

5. Even our concept of just what a librarian is, and what he does, is far from that held a generation ago. The move toward recognized paraprofessionals and library technicians will affect this even more.

These developments have a direct bearing upon the units to be counted and the way they are counted. When the remarkable technological advances in statistical techniques, automated counting, and data processing, storage, and retrieval are added to these factors, it becomes apparent that any immutable plan for national library statistics is impossible and undesirable. What *is* essential is national *planning* as a continuous process, sensitive to and adaptive to new tools, new concepts and attitudes, and new uses of library data.

Defining what is meant by a "nationwide system of library statistics" has been difficult. Each of the special groups and individual consultants who have been involved in this project sees such a "system" from a particular vantage point and with a certain vested interest based upon the type of library, library service, or information need with which he is associated. To be sure, each has realized the "system" must be broad enough to encompass all the others' interests. A general feeling of unanimity has been present, but when the tough decisions such as exact perimeters of scope, frequency, and detail of data collection have to be made, vested interests come to the fore. It must be remembered, however, that this has been so for the past hundred years. It is not new; hopefully, it is not insurmountable.

A utopian system would satisy all of the needs indentified by all these various points of view. It would provide easy access to a complete bank of library data from which both desirable samples and complete universes could be drawn at will. The age of the computer, and man's increasing ability to reach the stars he grasps for, give us hope and promise which pervade our approach to complex problems, especially statistical ones. But it also engenders frustration when we come face to face with fiscal and political realities. Who is going to be responsible for the input? Where is the money coming from? What are the priorities? For how many audiences are we designing this statistical system?

This report attacks these questions from various points of view and with specific needs in mind. It is hoped that

the report will provide a broad rationale upon which a nationwide system of library statistics can be designed, and that the specific recommendations will guide its structure and development. The recommendations certainly do not profess to encompass all of the concerns which can be raised by users of library data. A nationwide system must, at this stage, be a direction toward which the concerned parties agree to move together, rather than a specific final destination they wish to reach. Moreover, it must contain a proposed program of implementation. These guidelines, therefore, will become a data system as they are translated into action.

The American Library Association's statistics planning project, which resulted in this report, is a direct outgrowth of two recent efforts: (1) the Statistics Coordinating Project, which produced the volume *Library Statistics: A Handbook of Concepts, Definitions, and Terminology* (hereafter referred to as the *Handbook*) in 1966, and (2) the National Conference on Library Statistics, the proceedings of which were published in 1967. Events leading up to these efforts are summarized in the overview paper by G. Flint Purdy in appendix A and in appendix C.

Further historical background can be found in the overview paper by John Lorenz in appendix A. Essentially, the project for nationwide system planning is the result of continued efforts by the Statistics Coordinating Committee, which is organized within the Library Administration Division of ALA. Under its aegis, the project proposal was designed and funds were secured from the National Center for Educational Statistics of the U.S. Office of Education.

The design of the project is simple, if somewhat eclectic. Nationally know authorities were asked to produce general position or overview papers which could guide a group of specialists representing the major types of libraries and library concerns. The overview papers and the papers of the specialists, presented in appendixes A and B, deserve a few words of explanation and background. First, the overview papers (appendix A):

1. **Professional:** This paper establishes a backdrop of concern for library statistics as felt by the profession at large. Against such a setting, the specific needs for data of the various types of libraries can be highlighted. Its broad approach includes an historical perspective, as well as the present-day considerations which should shape a nationwide system. G. Flint Purdy, Director of Libraries, Wayne State University, was engaged to produce this segment of the report but died prior to completion of editorial work. A note of appreciation is appended to his paper, presenting his unique qualifications for this task.

2. **Federal:** The statistical needs of the Federal Government and its role in the compilation and dissemination of library data were felt to require special attention. This paper reviews the authority under which the Federal Government has concerned itself with library statistics and the specific agencies which should be involved in any nationwide data system. John Lorenz, Deputy Librarian of Congress and former head of the Library Services Branch of the U.S. Office of Education, views this area from his long experience in Washington with matters relating to library data needs.

3. **Legislative:** Increasing governmental support of library programs at the local, State, and Federal levels carries with it special needs for data. Not only is this a concern for accountability, but detailed information is also essential in order to draft library-related legislation and to justify appropriations. Paul Howard, former Executive Secretary of the Federal Library Committee, has been intimately involved with library legislation for more than 25 years. His paper on statistical support of legislation reviews the kinds of data needed and why they are vital to the legislative process. A nationwide system for the collection and dissemination of library statistics would have to meet these needs if library programs are to compete favorably for the tax dollar.

4. **State:** S. Gilbert Prentiss, former State Librarian of New York, was engaged as a specialist for State libraries. As his work progressed, however, it became evident that the roles of the State library as collector and as producer of library statistics should be separated. The potential for State agencies as partners with the Federal Government and national associations in implementing a nationwide data system is so central to its design that this portion of his work has been placed with the overview papers and was used as a general guide for the specialists.

5. **Library Networks and Systems:** The statistical problems of library systems are particularly evident in the papers on public libraries and school libraries. They are enormously perplexing and must be resolved if one is to measure in any meaningful way the impact of library systems upon library development. When the dimension of multiple-type library arrangements is added, special attention must be given to this whole area. Concurrent

with the work of the statistics planning project were the efforts of Ruth Boaz in the National Center for Educational Statistics to formulate a survey of public libraries which would reflect these concerns. The article, "The Dilemma of Statistics for Public Libraries," which appeared in the *ALA Bulletin* of December 1969, presents the problems encountered in this survey. The implications of networks and systems for library statistics have been summarized in a paper written as an introduction to a survey proposal made by the Office of Education. Although this paper was not written as a part of the statistics planning project, it has been included here as an overview paper because it presents an innovative approach to data collection for comprehensive library planning. Miss Boaz worked on the 1963-66 evaluation of the New York State public library systems and in the statistical unit of the Division of Library Development of the New York State Library prior to joining the U.S. Office of Education in April of 1968.

6. **Research**: While several of the papers touch upon the data needs for research into library matters, this paper is intended to focus specifically upon these needs from the outset. The information collected determines in large measure the extent, depth and quality of the research possible. Gaps in data, as well as inconsistency in terminology and definitions, have severely limited our research capability. This is particularly evident when one attempts to determine trends within the profession, and to measure progress in any documented way. Computer and other techniques will undoubtedly enable us to learn more from the data available, but a nationwide system will have to concern itself with data which are not now available, but which are essential to the conduct of penetrating inquiry and analysis. Kenneth Beasley, Dean of the Graduate School, University of Texas, El Paso, has for many years looked at library problems and research needs through the eyes of a political scientist and public administration expert. His overview paper on research builds upon his studies for the Pennsylvania State Library and subsequent research into library matters.

Specific Statistical Concerns (appendix B): While the Statistics Coordinating Committee was anxious that the statistics planning project not go over the same ground covered by the *Handbook,* there was, understandably, the intent that the specific fields covered would match and build upon those in the 1966 volume. Special consultants, therefore, were engaged in the areas of college and university, public, State, school, and special libraries and in the field of library education. Because of the emergence of Federal libraries as an organized group, and the increasing importance of the role of this group in the development of a nationwide library data system, the area of Federal libraries was added to this list.

Fiscal, temporal, and other practical limitations precluded detailed coverage of a number of distinct types of libraries, as it did in the *Handbook,* for example: law libraries, libraries connected with religious organizations, patient and inmate libraries in hospitals and institutions, and association and labor union libraries designed for member use. The *Handbook* stated in regard to these special types of libraries:

> Although these libraries do not qualify for inclusion in the basic types of libraries . . . they must be considered in the evaluation of total library resources in the United States. Also, when one is evaluating library use and library resources on a national basis, it is readily apparent that libraries of this type will have an impact on the statistics.[1]

Exclusion from specific coverage of special classes of libraries caused concern following the publication of the *Handbook,* and perhaps a word of explanation here would help place this matter in perspective. First, the categories included were, to a great extent, predicated by those represented on the ALA Statistics Coordinating Committee, either by virtue of their membership as distinct statistics committees within the American Library Association or by their representation on the Coordinating Committee through liaison membership arrangements. Second, the included categories constitute those in which a considerable body of statistical experience has accumulated. Third, in some cases the included categories are broad enough to encompass specialized areas. For example, law libraries not only can be considered to be a subgroup within special libraries but they also have a relationship to State, Federal, and college and university libraries.

While these considerations may seem expedient, it should be recognized that a nationwide system will have to include specialized library interests and constituencies. Omission of specific focus upon special types of libraries in this project should be considered a limitation, perhaps, but not an oversight. Several of the chapters refer to the problems of overlap which multitype library

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[1] American Library Association, *Library Statistics: A Handbook of Concepts, Definitions, and Terminology,* p. 7.

systems, which may be involved in basic and special categories of libraries, raise. Particular attention will have to be given those libraries which are quasi-public, quasi-academic, and those whose functions and allegiances cut across the traditional stratification now used by the profession. The overview paper on library networks directs attention to these complexities, and a nationwide, comprehensive library data system will have to concern itself increasingly with the emerging cross-cut presaged in today's use of library and information networks and systems.

The papers covering specific statistical concerns may be considered addenda to the chapters in the *Handbook*. An effort was made to obtain consultants other than those who authored the *Handbook* chapters, and this was possible in every case except that of school libraries. Each of these consultants was provided with a set of the overview papers and was asked to direct attention to the following:

1. Gaps in the *Handbook*.
2. The universe for his category of statistics, along with possible sampling techniques.
3. Priorities.
4. Periodicity.
5. Financing.
6. The allocation of responsibilities for statistics collection and dissemination by Federal, State, and professional agencies.

Public Libraries: Rose Vainstein, Professor of Library Science at the University of Michigan, produced the paper on public library statistics. Long associated with library statistics at the Library Services Branch of the U.S. Office of Education, Vainstein addresses herself to the emerging statistical problems of library systems, providing detailed inquiry into questions raised by Ruth Boaz in the overview "Library Systems and Networks."

School Libraries: Richard L. Darling, then Director, Department of Educational Media and Technology, Montgomery County, Md., Public Schools, was one of the consultants to the Library Statistics Coordinating Project of 1963-64. His paper on school library statistics is an extension and refinement of his contribution on this subject in the *Handbook*. Darling is also known for his former work with national statistics at the U.S. Office of Education. He is now dean of the School of Library Service, Columbia University.

College and University Libraries: Academic libraries are covered by Jay K. Lucker, Associate Librarian, Princeton University and George M. Bailey, Professor and Chief Librarian, York College, City University of New York. This joint effort brings together the concerns of the whole academic library spectrum from the large university to the 2-year college.

Library Education and Manpower: Consideration of the statistics of library schools as essential to those of library manpower in general is provided in the paper by Frank L. Schick, Director, School of Library and Information Science, University of Wisconsin at Milwaukee. Schick is known for his extensive work with library statistics at the Federal and international levels and is currently chairman of the Statistics Coordinating Committee of ALA. His paper "Status of Library Statistics Publications, 1970" is included in appendix C of this report by permission of the R. R. Bowker Company.

State Libraries: S. Gilbert Prentiss' coverage of State library statistics, as explained previously, is divided into two parts. The first, "State Libraries as Collectors of Statistics," appears as an overview paper. The paper included under Specific Statistical Concerns deals with State libraries as producers of statistics, an area which presents many complexities and which has had only the most rudimentary coverage in statistical compilations.

Special Libraries: Logan Cowgill, of the Office of Water Resources Research of the U.S. Department of the Interior, contributed the paper on special libraries. As chairman of the Statistics Committee of the Special Libraries Association, Cowgill is a liaison member of ALA's Statistics Coordinating Committee. The American Library Association is particularly grateful for his efforts on behalf of this project. Thanks are also extended to the Special Libraries Association for facilitating Cowgill's work and for its cooperative efforts to include the concerns of special libraries, which constitute such a large segment of the profession.

Federal Libraries: Paul Howard, then Executive Secretary of the Federal Library Committee and since retired, was prevailed upon to write a paper on the subject of Federal library statistics in addition to his paper on the legislative process. Federal libraries comprise many types and are scattered throughout this country and over the world. They have long been neglected in any overall statistical compilation and planning.

The diversity of interests, the varing levels of detail required, and the overall intent of the statistics planning project not to restrict or overstructure the efforts of the 12 consultants, made it impossible for all papers to present parallel deductions and suggestions. The conclusions and recommendations presented in chapter 3 were prepared by the editor as an analysis and distillation of the implications of all the papers and project discussions.

The Statistics Coordinating Committee (Library Organization and Management Section, Library Administration Division, American Library Association) served as an advisory board to the entire project, and insofar as possible, each of the individual statistics committees was asked to review the papers of concern to it with the specialist, to act as a sounding board, and to submit comments and recommendations to the Coordinating Committee, whose chairman (1963-69) served as project director and general editor.

Assisting the project director was a small steering committee which was invaluable in working out the many logistical problems of the study, as well as those in which seeming conflicts and contradictions emerged. Ruth Frame, Executive Secretary of the Library Administration Division, ALA, handled all scheduling, fiscal matters, and general correspondence and contributed substantively to decisions made along the way. Alphonse Trezza, now director of the Illinois State Library, continued to contribute the kind of insight and support to this project which was so productive during the Coordinating Project of 1963-64. Joel Williams, who directed that project, served as Federal monitor to the present effort, and from his vantage point as Chief of the Library Surveys Branch of the National Center for Educational Statistics, provided insight into the needs and exigencies of the U.S. Office of Education. Further continuity and assistance was generously provided by Frank L. Schick who has been identified previously in connection with the paper "Library Education and Manpower."

The editor is also very grateful to Nettie Taylor, Director, Library Extension Division, Maryland State Department of Education, and past president of the American Association of State Libraries, for her critical review and expenditure of time and effort on behalf of the project, and to Ray Fry of the Division of Library Programs, U.S. Office of Education, and his staff, for their willingness to act as a sounding board.

The guidelines presented in this report are designed to serve as directions toward development of a nationwide system of library statistics, focused on the collection, evaluation, and dissemination of pertinent, meaningful, complete, and accurate library statistics.

Chapter III

CONCLUSIONS AND RECOMMENDATIONS

This chapter, written after the papers presented in the appendixes were prepared, had the advantage of a number of meetings and joint deliberations not afforded the authors of these papers. It presents, hopefully, a wider agreement on certain central issues, but it does not presume to answer each and every question raised in the overview and statistical papers. Reference should be made to appendix B, "Specific Statistical Concerns," for detail as to statistical problems and proposed solutions by type of library and for library education and manpower.

A number of concurrent developments outside the framework of the Statistics Coordinating Committee of the American Library Association have influenced this chapter—many of them associated with the U.S. Office of Education and its National Center for Educational Statistics (NCES). The following trends undoubtedly will have an impact upon future library statistics programs:

1. The present austerity in which the Federal Government's programs operate restricts considerably the ability of NCES to make major commitments toward the assumption of new responsibilities regarding any nationwide library statistical program. Emphasis, therefore, must be placed on shared responsibility among governmental and nongovernmental agencies. At the same time, there is an indication that modest grants made specifically for improvement of State statistical programs along the line of title X of the National Defense Education Act might be feasible. In conjunction with nationwide planning, this seed money could do much to improve the situation.

2. The library and information science community can anticipate a number of research efforts and surveys which will bear directly on statistics programs, such as inquiries which will relate to new administrative techniques (program planning and budgeting, management systems, etc.) and to the measurement of impact of social programs (user satisfaction, relevance to pressing issues of urban life, poverty, equalized opportunity, etc.). In this respect, a hope of the National Center for Educational Statistics to augment its own staff with contracts for supplementary work should be mentioned.

3. There will be increased emphasis on factors of accountability. Governmental units which are the major gatherers and disseminators of library statistics will place priority on those data items which are considered to be the best measures of the results of their investments and which help to satisy the informational needs of their legislative bodies and executive decisionmakers. It can be assumed that USOE's primary inhouse efforts will be directed to providing the information needed by the Federal Government for its own program control and evaluation.

4. The library community will be asked to reevaluate some time-honored concepts such as the value of institutional listings vs. comparison by stratified norms and medians, and the use of sampling techniques vs. total data collections. It will be challenged to catch up statistically with its own evolution and technology as well as with the nationwide data systems of other fields. This development is a part of the new emphasis on accountability and evaluation.

The following problems are illustrative of those arising from the forces of change acting on today's libraries and media centers:

1. Centralized cataloging vs. local cataloging operations.

2. Multipurpose libraries vs. separate units designed to serve certain portions of the user's total informational needs.

3. Population "served" vs. population eligible for service.

4. Service measurements vs. workload data.

5. Size of collection vs. use, recency, and relevance of the collection (with implications for central storage of little-used materials, facsimile transmission, and other retrieval devices).

6. Reduction of duplication vs. necessary duplication for more immediate satisfaction, and the use of expendable materials.

7. Traditional hierarchy of professional librarianship vs. selective skills training, work allocation, and skills sharing,

8. Autonomy and status vs. systems and networks development.

These problems have significant bearing upon statistics and upon the kinds of data needed. The presence of so many unresolved questions and the general foment for change within the information and communication sciences make it difficult to keep pace with the needs of the profession and preclude a tidy, finite, and static plan.

The recommendations presented here are admittedly transitional and evolutionary. They are more concerned with planning as a process than with a plan, or blueprint, as an objective. They are guidelines for implementation and it is hoped they will inventory a number of areas beyond the scope of this study which need concerted attention, research, and resolution.

Standardization of Terminology

The *Handbook,* or more particularly, its "Glossary: Terms Used in Statistical Surveys," represents a point of departure for what must be a continuous effort to standardize and refine terminology. Such a body of definitions is essential to national aggregates and to any program of shared responsibility. In the 5 years since it was published, a number of needed refinements have come to light, as well as some significant additions. The statistics committees of ALA's Library Administration Division have continued this work and some major segments are now ready for adoption. A set of definitions has been completed for physical facilities of libraries, has been adopted as a formal supplement to the *Handbook,* and is expected to be published at an early date. Considerable progress has also been made in formulating a standard vocabulary for technical services. Elsewhere in ALA, work is progressing on a revision of the *ALA Glossary of Library Terms,* last published in 1943. The publication in 1969 of the *USA Standard for Library Statistics* should also be noted.

The standardization of terminology is particularly appropriate to all library and related associations and every effort should be made by ALA to seek the assistance and involvement of other major national library associations. Although committee activity undertaken primarily at semiannual conferences is limited and slow, reasonable debate and concensus is built into this process. While coordination and authoritative publication of terminology of library statistics are properly the responsibilities of the National Center for Educational Statistics, the actual defining of terminology should take place in the library and information science community. ALA, through its Statistics Coordinating Committee should:

1. Outline areas in which standard terminology has not been developed and set priorities for their coverage.

2. Develop an orderly program by which suggested revisions to existing definitions can be reviewed and acted upon.

3. Commence planning a project which will lead to the publication by NCES of a document which would revise and expand the glossary that appears in the *Handbook* and in the *USA Standard for Library Statistics.* The Coordinating Committee should bear the following in mind as it designs and implements such a project:

   a. Coordination insofar as possible with present efforts to issue a new ALA glossary of library terms.

   b. Continued representation of NCES on the Statistics Coordinating Committee. If NCES is to utilize, further develop, and promulgate the standardized terminology, it must be significantly involved.

   c. The desirability of special funding for the project. The mechanics which produced the *Handbook,* i.e., a funded project staff, advisory assistance, and a series of regional conferences at which the broadest possible spectrum of reaction and suggestion was obtained, were basic to its success and general acceptance.

4. Strengthen ties with other professional associations, particularly with appropriate subdivisions of the Special Libraries Association, the Association of Research Libraries, the Canadian Library Association, and others working on standard glossaries and related activities regarding library automation and computerization.

5. Seek advice and guidance from specialists in other disciplines whose work involves them in library statistics (e.g., statisticians, public administrators, political scientists, sociologists, etc.). A relatively small expenditure might enable the committee to hold special meetings with such persons at crucial

moments of planning, policysetting, and decision-making.

6. Seek to involve in its membership persons actively engaged in library statistics and research, recruiting on the basis of skill and involvement rather than prominence in the profession and in the ALA structure.

7. Hold for its own membership workshops in "data-banking," program planning and budgeting, and other techniques which affect statistical terminology and procedures.

Against this background of wide professional participation in developing and recommending statistical terms for library data gathering, the National Center for Educational Statistics should adopt and promulgate the terminology along with such additions and qualifications as it might have to adopt, through a U.S. Government manual for library statistics. It should be guided in this matter by its liaison membership on the Coordinating Committee and by its own advisory committee on library statistics described later in this chapter.

A Nationwide System of Library Statistics

An official statistical language for libraries, however, is only a small portion of what should constitute a nationwide system of library statistics. Basic to the recommendations of this chapter is the necessity to decentralize, to articulate, and to coordinate the responsibilities for statistics gathering and dissemination. The proposed system depends upon a much more active role of the States and upon the input of research, interaction of advisory groups, inservice training, and relatively small amounts of money at strategic points along the way. The role of the States can be seen from the diagrammatic presentation in chart I and is interwoven throughout the steps to be outlined next. Research should be encouraged by all possible means and should involve the widest spectrum of professional participation. Reference is made to Beasley's overview paper in this context.

Chart I lists the major ingredients which should be part of a statistics system. Some of these are already incorporated in present programs and work effectively; others are additions to present practice.

NCES Advisory Committee: An important factor of the system is the formation of an advisory group on library statistics within the U.S. Office of Education.[1] Such a group should be broadly representative of users of library statistics, library and information science associations, research and computer experts, publishers, and other related groups.

National Commission on Libraries and Information Science: The activities of an NCES advisory group should be distinguished from those of the newly created National Commission on Libraries and Information Science. While the Commission will be concerned that adequate data on library conditions are available, it has a much broader charge. It will, therefore, be subject to many pressures involving national planning for library resources, services, and information transmission techniques which will meet the needs of the future. Its membership will reflect broad concerns of the profession and will be unable to give the detailed attention to statistical matters *per se* which will be required for the implementation of the system proposed in this report, much less to the ultimate formation of a data bank system. The Commission will, however, constitute a useful and much needed higher authority for financial support and determination of priorities. Naturally, the Commission would be directly concerned with that legislation necessary to implement the statistics program of the States as proposed and with efforts to secure its passage and implementation.

Coordination With Other Agencies: Several other influences should be brought to bear upon major policy and priority determination before NCES initiates forms for specific surveys. Expanded communication with the USOE Bureau of Library Programs and Educational Technology and with the USOE regional library program officers would be essential. In addition, other statistics-producing agencies (such as the Bureau of the Census) should be kept in mind for optimum correlation of data, derived statistics, etc.; and the Federal Library Committee could also make a contribution at this stage.

Forms Development: Development of standardized forms for the collection of national library data is the responsibility of the National Center for Educational Statistics and a major concern of its advisory committee. This activity should encompass the development of forms for both the State and local levels as well where national data are concerned. NCES could play a very

[1] Also recommended in *National Conference on Library Statistics,* p. 93.

important role as adviser to governmental and private agencies in the design of statistical forms which are consistent and effective. In addition, NCES should commission work on the development of forms from research centers (e.g., academic institutions and/or government-sponsored institutes) as appropriate and as required by the specialized nature of the particular form.

Review; Pretesting: Forms should be reviewed by the appropriate State agencies and the professional associations and should be pretested on a carefully constructed sample of the agencies to be surveyed. Sufficient lead-time must be provided for questions which necessitate the keeping of new records at the local level. The State agencies can be useful in assisting in the construction of pretest samples which are representative of the variety of local conditions the questionnaires must serve.

Forms Clearance, Further Coordination: NCES should coordinate its data collection activities with those required by other Federal agencies which administer programs affecting libraries. For example, data collected by the Bureau of Libraries and Educational Technology of the USOE in the course of administering various grant programs should be tapped by NCES and utilized. Local agencies should not have to answer the same questions for each of several agencies of the Federal Government if the data can be pooled and shared. Coordination and communication between NCES and the Bureau of Libraries and Educational Technology should be strenghtened. If this requires some formal intrastructure, then one should be established.

A central data bank serving all parts of the USOE would seem highly productive, but care would have to be taken to see that all pertinent information were indeed "deposited" in the bank. Such a system would presuppose standardization of terminology and procedure in all USOE data-gathering activities. Whether or not a data bank is established, a forms clearance program beyond that exercised by the Office of Management and Budget (formerly the Bureau of the Budget), which must pass on all governmental forms, is essential. The data bank aspect is discussed in detail later in this chapter.

NCES is obviously not responsible for all information released by the Federal Government on the Nation's libraries. Evaluations of grant programs, research reports, and other major pieces of information are the responsibility of the offices which execute these programs and may include statistical information. Much of this information tends to be of an inventory type (the number of libraries which have, or have not, certain characteristics; do, or do not, provide certain services, etc.). This type of information is highly useful and needed, but it is not necessarily statistical nor subject to derived data and interpretation. Much more inventory-type information should be issued by the USOE but would generally be beyond the scope of NCES, at least in its present form and until a well-developed data bank system is operative. The effort represented by this report should not be confused with a total national information system on libraries which would be capable of infinite expansion.

Printing and Distribution: The national Center for Educational Statistics should have survey questionnaires printed in sufficient supply for distribution to each State according to the demands of its self-determined universe(s). Franking privileges should be extended for the mailing by the States of all questionnaires designed by the Federal Government for national statistical surveys.

Library Universes: Library universes should be defined by NCES but can only be determined with any accuracy and economy at the State level. The American Library Association and other professional associations should study the question of library universes and establish a minimum standard for statistically significant units, and make recommendations for meaningful samples when the sampling technique can be used judiciously. Further study is also required in adopting appropriate statistical terminology for library systems, especially those which include more than one type of library. Although NCES can provide basic building-block-unit survey forms, it is the responsibility of the States to produce aggregate systems reports.

Education; Training: NCES has an obligation to assist the States in the data-collecting activities which it delegates to them. Workshops should be regularly scheduled on a regional or interstate basis, at which the questionnaires, their distribution within the States, and editing requirements would be discussed. The State personnel directly responsible for these activities should attend the meetings. The resultant forum for comment and criticism about the forms and procedures would be as useful to NCES as to the participants, since reaction and feedback can be used to refine the program and correct errors and misjudgements. One of the serious problems of library statistics has been the lack of opportunity to involve middle management directly responsible for their collection. In addition to involving such personnel at training sessions, it would be desirable to encourage participation of appropriate representatives of ALA and other professional associations in order that the

consumers and major advisers would have more immediate contact with the pragmatic issues involved.

Procedures Manual; Instructions for Survey Forms: Essential to the workshops and to the statistical activities of the States on behalf of the Federal Government, would be the development of Federal manuals of instructions and procedures. These manuals should embody the standardized terminology adopted and promulgated by NCES and should delineate desired procedures and editing instructions in detail as well as provide general understanding of the objectives of the various surveys. The manuals should be reviewed by the NCES advisory committee on library statistics and revised as appropriate. Considerable care should be exercised to continue the same procedures from year to year and to revise them only after thoughtful deliberation and expert advice. The more familiar the State and local agencies become with the forms, the terminology, and the procedures, the better will be the product, and irritation and confusion can be minimized. Also, if changes in the manual or the instructions are adopted, considerable leadtime should be allowed (at least a year) for the State and local agencies to become thoroughly aware of them and institute necessary adjustments. Inservice training and workshop activities would probably have to be intensified to facilitate understanding and compliance.

Additional State Statistical Needs: In addition to the Federal statistics activities for national library data, there should be the careful construction by the States of additional questions and statistical instruments needed individually by them to satisy legal requirements under State law, to meet the more detailed data requirements they would have in their day-to-day contacts with local agencies, and to evaluate specific programs. The Federal Government has a role here in assisting the States to adopt certain uniform procedures and forms in order to improve comparability among the States. But we are speaking of areas of data which are for the most part beyond the Federal purview and would not normally be published centrally as part of the national library statistics. The States must take the responsibility of refining their own data-gathering programs, and ALA's American Association of State Libraries should direct attention to coordination of these activities and such uniform survey instruments as are feasible.

State Advisory Groups: In each State, an advisory committee on library statistics should be appointed to assist in these matters. Care should be taken to see that the various State agencies concerned in this area are represented. For example, library statistics have a bearing upon accreditation programs, State and community planning, urban affairs, and research activities, to mention only a few. Also the statistics program must take into account the many ways in which library activities are organized at the State level, e.g., separate State library commissions, public library extension agencies organized within State departments of education, school library development agencies within or outside the State library structure, separate departments of higher education, separate State historical agencies, etc. If intertype library systems and networks are to continue to develop, and if the number of separate Federal programs affecting libraries continues, then all the State agencies concerned should participate in the development of meaningful library statistics programs.

State Library Agencies; State Agencies Concerned with Libraries: In referring to State agencies which would act as the NCES links in the national library statistics system, it must be understood that we are not necessarily speaking only of the "State library agencies." The various forms of State organization mentioned before imply that for particular surveys (college libraries, for example), the appropriate State agency would have to be contacted, whether it be in the State department of education, the department of higher education, or the State library. While it would be convenient, and in many cases desirable, for the Federal Government to assign responsibility for all library surveys to a central State agency (such as the State library), such an action would be unrealistic and unworkable. It must work through existing State organizational patterns. In order to activate the appropriate State agency for comprehensive statistics collection, NCES must, therefore, develop relations with a number of relevant agencies in each State. On the other hand, to effectively coordinate such a program, each State agency will need to tap local groups for advice—library associations, library schools, research centers, etc. The States have an obligation to analyze the users of library statistics and, insofar as possible, include all of them in their library data program planning.

Distribution; Training: We are assuming much more sophisticated questionnaires and the use of standardized terminology which will be new to the local agencies. We are assuming, also, surveys by the States of library agencies with which they have had little or no contact

heretofore. The State, then, has the obligation to assist the local libraries to understand and comply with its statistical requirements. Considerable effort will have to go into the development of effective workshop techniques and manuals. On the State and Federal levels, timing will be a sensitive factor. Leadtime in which to commence new recordkeeping procedures at the local level and in which to become thoroughly acquainted with the procedures, objectives, and vocabulary is essential. With respect to the core questions which are being asked on behalf of the Federal Government, the States should be able to call upon "instructors" from NCES to assist with workshops. The cooperation and participation of State professional associations through their appropriate committees could also be of help in focusing attention on such meetings.

State Editing: At the heart of this recommended system is the decentralization of the program and the shared responsibility for editing the questionnaire returns. The Federal manual of procedures should contain editing guides for the States. The State agencies are close enough to the local units to spot obvious misunderstandings of the respondents and to clear them up through direct contact. They are also in a position to maintain an overview of local activities which impinge upon each other and must be correlated for a statistically sound picture of library system activities. Vainstein's chapter on public library statistics discusses some of these problems. Suffice it to say that meaningful statistics regarding networks and systems, especially those composed of different types of libraries, will make the editing process at the State level of crucial importance.

Coordination at the State Level: It is important that one central State agency be assigned the responsibility for this editorial process. It is recommended that the State library, or the State library extension agency, act as the central editing unit for core library data being forwarded to the Federal Government. It may have to work with other State agencies to obtain expertise in interpreting certain portions of the data. In any event, the advisory group(s) mentioned above should review and react to editorial policy. Obviously, leverage must be applied at this point, and some form of Federal financial assistance with regulatory guidance and control would seem the most effective. Should a central State educational statistics center evolve outside the State library or State library extension agency, then State library personnel should be assigned to the center to work with the coordination and editing of library data, and the State library should be a fully participating member of the center's planning and review activities.

Publication and Dissemination of Data: It is recommended that two parallel data publication and dissemination activities be defined, regularized, and implemented as soon as possible. NCES, upon receipt of the core data from the States should edit it again for its own purposes and publish it as promptly as the Federal governmental structure permits. Meanwhile, at the State level, the data which have been collected for State purposes should be published as soon as possible, using uniform table shells developed by NCES. This plan assumes that the primary responsibility (pro tem) for institutional data will rest with the States, and that the Federal Government will be primarily responsible for national aggregates.

State publication should allow for enough copies to satisfy individual requests from local agencies in other States through reciprocal distribution of all statistical publications of library data. State libraries have an obligation to provide information on libraries and library programs within their own States.[2] The State publications should receive wide distribution beyond the State borders: to other State library agencies, national associations, the Library of Congress, the National Center for Educational Statistics, the Bureau of Libraries and Educational Technology, and other Federal agencies.

National Library Statistics Depository: To provide a central resource for all those engaged in library statistics research, it is recommended that a library statistics depository be established and consist of all library statistics publications and survey instruments published in the United States. Such information should be made available on request to researchers in the field. The depository could be established at the Library of Congress, the National Center for Educational Statistics, the American Library Association, or any other appropriate agency.

Chart I: The following diagram presents a visual overview, albeit a somewhat oversimplified presentation of a nationwide statistics program as it would involve NCES and the State agencies in a shared-responsibility operation.

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[2] For example, an academic librarian in New Jersey wishing access to the statistics of one or several comparable institutions in California could contact the institutions directly but should have other avenues of access to the desired information as well—the State library being one of them.

CHART I

A NATIONWIDE SYSTEM OF LIBRARY STATISTICS

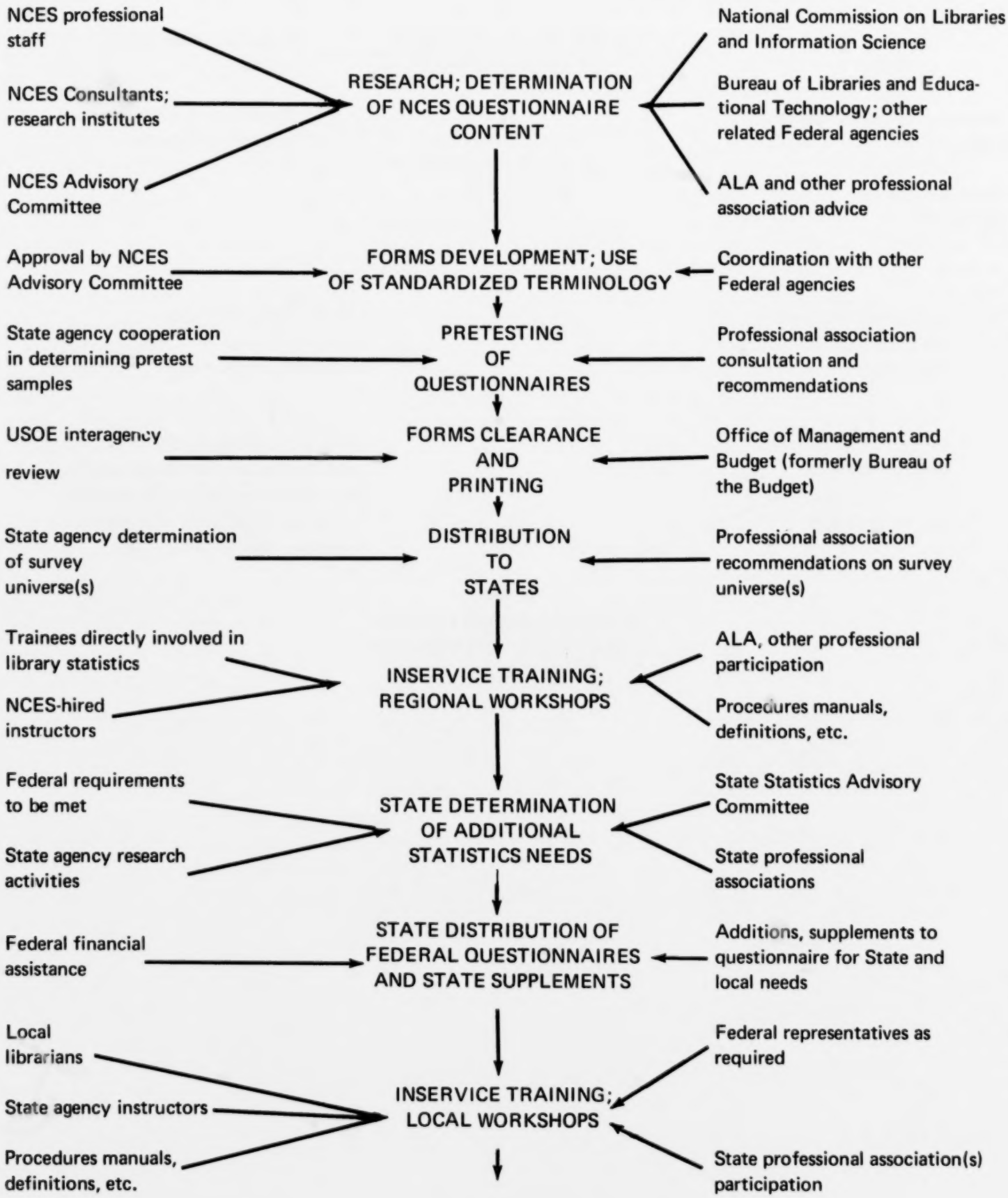
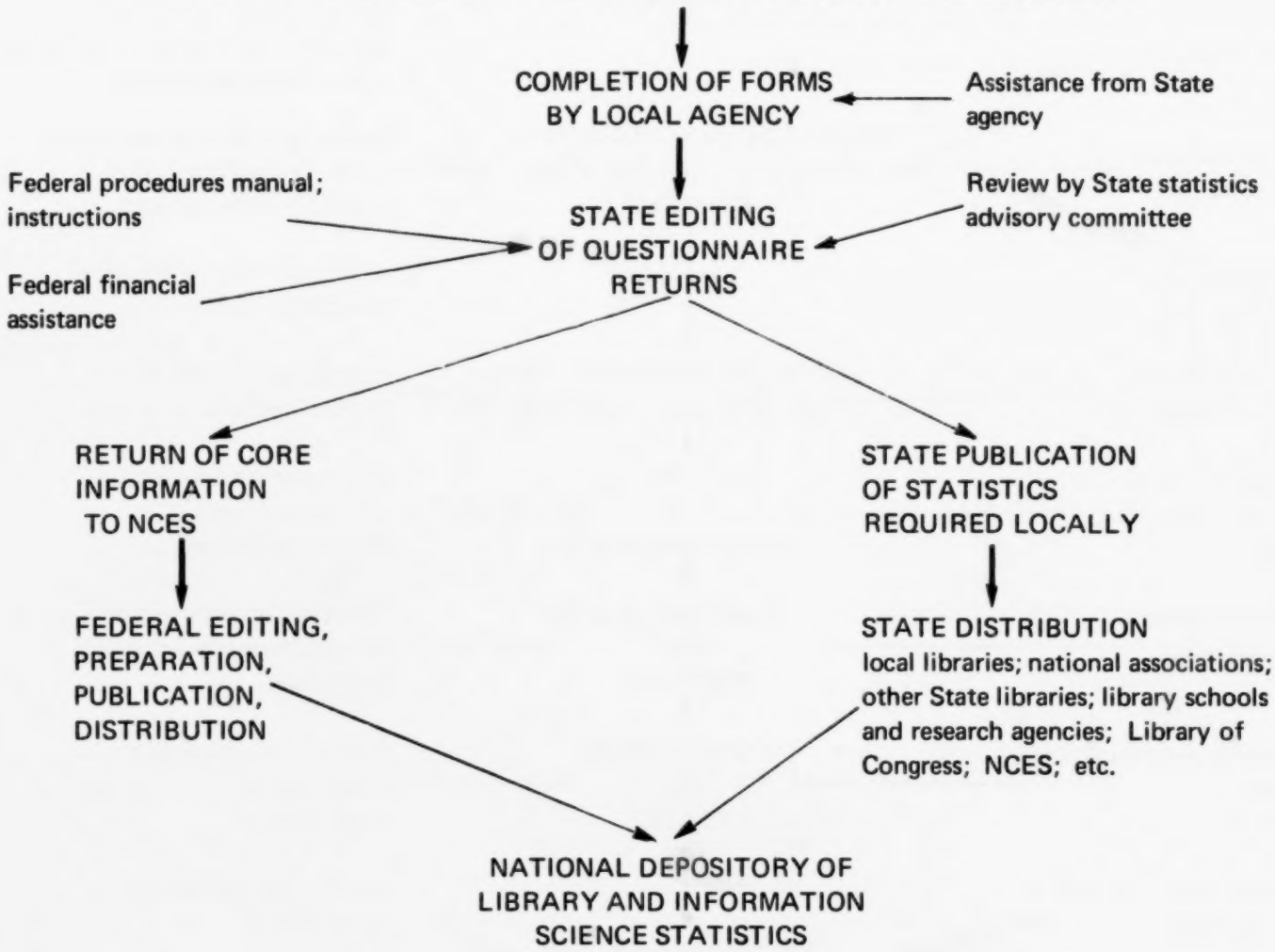

NCES professional staff
NCES Consultants; research institutes
NCES Advisory Committee
RESEARCH; DETERMINATION OF NCES QUESTIONNAIRE CONTENT
National Commission on Libraries and Information Science
Bureau of Libraries and Educational Technology; other related Federal agencies
ALA and other professional association advice
Approval by NCES Advisory Committee
FORMS DEVELOPMENT; USE OF STANDARDIZED TERMINOLOGY
Coordination with other Federal agencies
State agency cooperation in determining pretest samples
PRETESTING OF QUESTIONNAIRES
Professional association consultation and recommendations
USOE interagency review
FORMS CLEARANCE AND PRINTING
Office of Management and Budget (formerly Bureau of the Budget)
State agency determination of survey universe(s)
DISTRIBUTION TO STATES
Professional association recommendations on survey universe(s)
Trainees directly involved in library statistics
NCES-hired instructors
INSERVICE TRAINING; REGIONAL WORKSHOPS
ALA, other professional participation
Procedures manuals, definitions, etc.
Federal requirements to be met
State agency research activities
STATE DETERMINATION OF ADDITIONAL STATISTICS NEEDS
State Statistics Advisory Committee
State professional associations
Federal financial assistance
STATE DISTRIBUTION OF FEDERAL QUESTIONNAIRES AND STATE SUPPLEMENTS
Additions, supplements to questionnaire for State and local needs
Local librarians
State agency instructors
Procedures manuals, definitions, etc.
INSERVICE TRAINING; LOCAL WORKSHOPS
Federal representatives as required
State professional association(s) participation

CHART I–(Continued)

A NATIONWIDE SYSTEM OF LIBRARY STATISTICS–Continued


COMPLETION OF FORMS BY LOCAL AGENCY
Assistance from State agency
Federal procedures manual; instructions
Federal financial assistance
STATE EDITING OF QUESTIONNAIRE RETURNS
Review by State statistics advisory committee
RETURN OF CORE INFORMATION TO NCES
FEDERAL EDITING, PREPARATION, PUBLICATION, DISTRIBUTION
STATE PUBLICATION OF STATISTICS REQUIRED LOCALLY
STATE DISTRIBUTION
local libraries; national associations; other State libraries; library schools and research agencies; Library of Congress; NCES; etc.
NATIONAL DEPOSITORY OF LIBRARY AND INFORMATION SCIENCE STATISTICS

The process outlined in the preceding diagram should, at some time, contain another important element—the utilization of a national data bank system. An argument is made for data banking later on, but before we describe such an *ultima Thule,* present limitations must be faced up to, along with possible methods for alleviating them.

Interim Limitations and Considerations

The last decade has seen the gradual diminution of the library statistical publications of USOE. (Even in the most productive period of the former Library Services Branch, the library statistical publications were neither entirely synchronized nor complete.) A number of factors contributed to this program reduction:

1. Several reorganizations have taken place within USOE and are continuing to take place. Of particular interest was the creation of the National Center for Educational Statistics in 1965, at which time library statistics were separated from library programs, occasioning the reassignment of personnel, budget adjustments, etc.

2. An unprecedented spate of education programs was thrust upon the Office of Education by legislative action. Data gathering and distribution were forced to take a lower priority than the solution to pressing problems of implementing these programs and establishing necessary administrative and regulatory machinery. The magnitude of the programs directed toward education *per se* also tended to overshadow those of supportive services such as library service, and to preempt its already unsteady hold on the priorities scale.

3. The rapid growth of computer technology has forced the conversion of traditional statistical survey techniques—a conversion which is slow and laborious. Communication among computer and library experts has far to go and is impeded by a language barrier.

4. Confusion has always existed within the profession as to what information it considered essential and what terminology should constitute a standard. Although the *Handbook* provided the nascent NCES some guidance, it has been difficult for the Federal Government to respond to conflicting professional demands. One need only ask "what is a library system" or "what is meant by population served" to recognize the impasse which faced the national library statistics program.

5. The present austerity in which USOE must operate (the small staff allotted to library surveys at present and the reduced funds for all their attendant needs such as travel, publication, etc.) makes it impossible to assume that NCES is in a position to satisfy the profession's demands for continuing all the traditional surveys at a frequency known in the past in addition to initiating new survey techniques which will incorporate improvements sought by the Statistics Coordinating Committee and other interested professional groups. This reason overshadows almost any other for adopting the shared responsibility described in the preceding pages.

At this point in time and at this point in its development, NCES will, of necessity, have to direct its attentions foremost to the needs of the Federal Government rather than to those of private associations and individual users. This is regrettable, and one can only hope that a compromise between Federal and extra-Federal needs can be achieved which will ease this interim period. The Boaz overview paper, "Library Networks and Systems," is an indication of the direction of such a compromise.

The National Center for Educational Statistics, however, has no monopoly on problems which have circumscribed library statistical publications. The diversity of data needs within the library community has made it difficult to establish even a limited core of library information which can be aggregated nationally.

Chart II represents recurring categories of library data which are identified by the contributors to this project as needed regularly and which constitute a bare minimum. With the exception of information on physical facilities, and detailed personnel data (such as fringe benefits, etc.), these statistics are desired on an annual basis. Even so, there is considerable variation in expressed need, as can be seen in the following tally:

1. All seven categories want:
   a. Salaries.
   b. Staff data (number of positions).
   c. Population or clientele served.
   d. Expenditure by type or program.

2. All categories, except library education, want:
   a. Book stock.
   b. Periodicals.
   c. Microform.

d. Nonbook materials.
e. Interlibrary loan data.

3. All categories except library education and special libraries want:

   a. Number of outlets.
   b. Circulation.

4. Only public, school, and State libraries, and library education want income by source.

5. Only public and State libraries want reference statistics.

6. Only public, school, and college and university libraries want data on hours open.

CHART II

NATIONAL LIBRARY STATISTICS
BASIC ANNUAL DATA REQUIREMENTS

Basic data required	Public	School	College and university	Library education	State	Special	Federal
Income by source	X	X		X	X		
Expenditure by type of program	X	X	X	X	X	X	X
Salaries	X	X	X	X	X	X	X
Fringe benefits[1]	X	X	X	X	X	X	X
Staff	X	X	X	X	X	X	X
Book stock	X	X	X		X	X	X
Periodicals	X	X	X		X	X	X
Microform	X	X	X		X	X	X
Nonbook materials	X	X	X		X	X	X
Reference	X				X		
Circulation	X	X	X		X		X
Interlibrary loans	X	X	X		X	X	X
Physical facilities[1]	X	X	X	X	X	X	X
Hours open	X	X	X				
Number of outlets		X	X		X		X
Population or clientele served		X	X	X	X	X	X

[1] To be reported approximately every 5 years.

While the number of data in which there is expressed unanimity of need is disappointingly small, there is an indication that a body of "core" questions which would apply across the board for all types of libraries could be developed for meaningful national aggregates. These core questions would constitute a central body of data gathered regularly and in standardized form by NCES, hopefully with the assistance of the States. To them would be added other questions (depending upon the type of library surveyed) which would make up less frequent (perhaps biennial) national surveys published by the Federal Government. During this interim—pending the growth of NCES, progress toward a data bank system, and other factors—the bulk of annual, detailed data should be gathered at the State level and made accessible as described before.

Such guidelines as may be gathered from chart II would need further review by the professional associations once this line of attack was fully understood. It is possible that more common ground can be found and the assurance that publication would be regularized might influence the present desire for annual publication of some of the data items.

But it would seem clear that more concentrated expertise is needed to determine the nature of the core questions which might be adopted by NCES. The advisory committee recommended for NCES, the National Commission on Libraries and Information Science, further advice from the Statistics Coordinating Committee, and other national organizations (once the urgency of determining the scope of core data is known), plus the professional input of NCES itself, should be able to perfect and delineate essential data categories to be included in "core surveys" cutting across types of libraries. The fact that the library community, acting solely through its various association and committee structures, has so far proved itself inadequate to such determination cannot be escaped. To summarize, NCES should put primary emphasis on perfecting a multipurpose survey instrument (LIBGIS, as it is called in the Boaz paper) for the collection of core data on the local and system activities of public, school, college and university, State, and special libraries (and possibly Federal libraries) intended to produce annually:

1. National aggregates for each type of library, by State.
2. Information on libraries and library development functions at the local, State, and Federal levels. By library development functions is meant those activities and services which extend beyond the traditional service areas as defined by source of local support and which are developed on behalf of a network of library and information services.

NCES should also develop more detailed surveys by type of library. The frequency with which each type can be covered, however, will depend in large measure upon the rapidity with which the shared-responsibility system involving the States can be established and made fully operational.

Given the difficulties under which NCES must operate, this approach would seem rational and pragmatic. The library profession will want to review carefully the data which are to be included in core surveys, and NCES should make sure that adequate opportunity to do so is afforded. But while the profession can, and should, influence this coverage, it cannot expect to enlarge it to cover all the many aspects it might wish to have covered annually. Budget and staff limitations at the Federal level preclude this, as do the philosophic issues which require better definition and further stabilization (e.g., the questions of library systems and population served). Of great importance will be the concerted deliberations and assistance which the advisory committee to NCES can afford.

How long this admittedly restricted, interim program would continue depends upon three factors:

1. The rapidity with which the State agencies can assume their full statistical responsibilities in a nationwide system of library statistics (as illustrated in chart I).

2. The extent to which professional groups can develop supplementary data surveys which are sufficiently coordinated with the national effort to produce meaningful extensions of it.

3. The gradual development of a data bank system which would provide regular dissemination of essential core data, as well as access (at cost) to particular levels of detail, as needed.

State Statistical Capability: If the States are to assume responsibilities, many of which will be new, then some incentive program is needed to secure their cooperation. It is therefore recommended that participation in a standard, minimal program be recommended to State

library agencies and, upon consent of a majority, be made a mandatory factor in Federal library aid programs. The statistics program can be financed entirely by Federal funds, or on some matching basis. The latter would have the advantage of encouraging State governments to recognize the need for strenghtening State library agencies generally with realistic support of their own library and information needs.

There are a number of ways this incentive program could be designed. It would be out of scope for this report to attempt to design new legislation, though this would be one approach. Regulatory interpretation of existing statutes, such as the Library Services and Construction Act, the State Technical Services Act (administered by the U.S. Department of Commerce), the Elementary and Secondary Education Act, the Higher Education Act, and others, or amendments to them, would be another.

Whatever the legal mechanics, this federally supported and coordinated program should require the following factors at the State level:

1. Submission of an approvable State plan under which the statistics activities will be developed and carried out.

2. Identification of legal authority in State statutes for gathering, interpreting, publishing, and disseminating library statistics for all types of libraries.

3. Identification of the agency or agencies within State government which will carry out these responsibilities, and the means by which efforts in this area will be coordinated.

4. Identification of a State library statistics advisory committee which will represent all types of libraries and major information interests within the State.

5. Compliance with NCES requirements concerning terminology and procedures as developed in official U.S. Government instructions and manuals.

6. Agreement to act as the Federal Government's agent in surveying libraries within the State with regard to core information needed nationally.

7. Identification of the means by which the State will encourage and train local libraries to participate in the statistics system.

8. Identification by each State of the various library universes as defined by the Federal Government and the use of such national, standard coding system as might be developed for both individual library units and for library systems.

9. Submission of data on the library functions at the State level as required by the Federal Government for national use. (See Prentiss's paper on State libraries as producers of statistics in appendix B.)

10. Provision of statistically skilled personnel to coordinate, interpret, and edit State statistics on libraries, to develop forms, and to assist local libraries in filling them out, etc.

11. Allowance for coordinated, cooperative, multi-State programs where population and library density would make this more feasible. (Advice from the regional library program officers of USOE could be valuable in these considerations.)

12. Compliance with standardized format requirements of electronic data processing (e.g., punched cards, machine readable tape, etc.) as data bank development proceeds.

At the Federal level, NCES would have to assume the responsibilities outlined for it in a nationwide library statistics system. Realistic budgetary support of NCES will be essential. In addition, of course, the Federal Government must provide grant funds to the States to enable them to comply with the 12 factors just cited. NCES, in cooperation with the American Association of State Libraries of ALA, should cost out the elements of State responsibility involved in the system, namely:

1. State determination of library universes.

2. State forms development, distribution.

3. State advisory committee expenses.

4. Development and publication of State statistical manual.

5. Local inservice training workshops.

6. Research activities directly concerned with refining the program.

7. Staffing (including competent statistical personnel).

8. Editing of data.

9. Publication and distribution of individual library data by the States.

10. Other elements.

A very rough estimate of this cost for all 50 States and the outlying areas would be approximately $3 million annually—a very small national investment considering the large sums which have gone into library development programs in this Nation.

In addition, and especially in view of any attempt to establish a national library data bank system, NCES (or the Bureau of Libraries and Educational Technology, whichever is appropriate) should be enabled to conduct specialized library surveys and to provide detailed data on particular aspects of library activity (beyond the normal statistical program) *at cost* to the user. Defraying cost in this way would enable research centers, publishers, governmental and private agencies, and individuals to tap into the data mass as accumulated and produced by the system without placing undue burden upon NCES. (A precedent for this activity can be found in the special studies of the U.S. Bureau of the Census.)

Supplemental Professional Activity: Statistical publication by the profession itself has been significant in the past and should not be discounted for the future. In the main, and with such notable exceptions as college and university library statistics published prior to 1960 and certain recurring selected salary surveys, these contributions have been sporadic and uncoordinated. Professional associations, libraries, and other private agencies are ill equipped to sustain major portions of the national statistical coverage on libraries. As nonprofit organizations, they have not had sufficient funds to do the work; they must respond to their particular memberships or governances rather than to the dictates of an overall plan; and compliance of agencies surveyed is on a courtesy basis and therefore cannot be assured.

This is not to say that such agencies, and especially research units of academic institutions, do not respond ably when commissioned to do a particular survey or to analyze, edit, and publish data already gathered. NCES should exercise great freedom in commissioning such work and in supplementing its own publication capacity with the skills and services of outside agencies. Indeed, it is hoped that these arrangements will be expanded and intensified. Not only do they disperse the workload and make possible the keeping of certain deadlines, they also promote healthy exchange, communication, understanding, and trust between the Federal Government and the profession.

What portion of national library statistics commitments can be borne by the profession itself?

Adequate personnel statistics to meet the needs of professional planning (such as individual salaries, fringe benefits, certification, and tenure data) may be impossible to acquire through general statistical programs of the Federal and State Governments. The national library associations must take the initiative and responsibility for the availability of annual personnel data to enable librarians and the general library community as a whole to recognize needs and to take informed action.

The American Library Association is currently considering ways and means of conducting annual salary surveys. This is considered to be a step toward the establishment of annual library salary goals. The ALA also expects to develop employment standards including fringe benefit guidelines. These two programs will require the investment of funds and man-hours by association members and staff.

The Special Libraries Association and the Association of Research Libraries each has periodically collected and distributed personnel statistics regarding their own individual or institutional members. The ALA should work closely with the other library associations in the development and support of a program of adequate personnel statistics for the profession. These professional associations must also work with the national and State agencies to acquire all possible data through, and from, ongoing statistical programs of the governments.

It must also be clearly understood that all libraries must cooperate fully in providing requested personnel data to governmental and professional statistical programs. Failure to cooperate completely with such programs will mean the profession cannot assess the status of the profession with accuracy.

This report emphasizes the wisdom and necessity for the use of sampling techniques in statistical reporting. Sampling techniques should be used whenever possible by the profession in fulfilling its commitment of providing personnel data.

It is suggested that, at the Federal level, the annual personnel studies of the associations be supplemented by occasional, intensive surveys by NCES which correlate

and interpret data of the various types of libraries. Sampling techniques, again, would be essential.

In addition to bearing the responsibility for adequate personnel data, the profession may also need to sponsor other "special studies" which cannot be included in periodic library statistics studies. These might include statistical reports on holdings by subject and by form, space requirements, and user needs.

Again, for the interim, responsibility will have to be borne by many specialized agencies for much of their own statistical needs. For example, The American Association of Law Libraries, Music Librarians Association, Medical Libraries Association, and the numerous chapters of the Special Libraries Association represent crosscuts of the profession which the present system is unprepared for. In time, the proposed data bank system could provide much needed information for the various interest groups, and should be designed to do so. But NCES is obviously unable to render this kind of service now (except as specifically commissioned) and will be unable to do so for some time to come.

Professional organizations should be encouraged to supplement the nationwide system outlined in this chapter in every way they can. They should not be asked, however, to bear responsibility for basic minimal, annual statistical coverage of the Nation's library activity.

A National Data Bank System: In the long range, the statistical needs of all users of library data can best be satisfied by an electronic data bank system. Many factors lead us to such a conclusion:

First, each user, whether stratified by type of library unit or by type of need (administrative, research, political, etc.), wants more, not less, detail for his area of concern than is now or has been hitherto available and can cite compelling reasons why such level of detail is needed. The increasing complexity of information control and of organizational and fiscal factors surrounding the knowledge explosion is among the more obvious. Also, as society attempts to mobilize its forces to deal with such massive problems as urban change, social and economic equalization, and evolution and revolution in any number of directions; the variety and number of users of library related data expand. Detailed data are increasingly of interest in the areas of sociology, political science, education, commerce, industry, and others beyond librarianship *per se*.

In spite of this multiplication of detail to be collected and the uses to which it can be put, or indeed perhaps because of it, those concerned with library statistics have all too often tried to control data by establishing some delimiting framework—by sorting out the absolutely necessary from the postponable. What data are needed, how often, who is to be responsible, etc. are questions which are repeated throughout the literature and are faced in almost every paper in this report. One of the oldest and simplest ways of controlling massive detail is to reduce it. But this method runs contrary to the major forces at work in an era of exploding population, information, economy, and technology. Our need for detailed data grows in proportion to its mass. Fortunately, this growth tends to be equaled by the technical ability to cope with it.

Attempts to delineate the areas and the frequency of library statistics which are to be produced have been frustrating. Who is to decide what is essential, what is postponable? Even if librarians can achieve a consensus, what of those who produce and allocate the funds for libraries? Electronic data processing and the data bank concept are the only techniques which will accommodate the mass of detail and the multiplicity of uses which now exist and can be expected to expand.

As pointed out by Boaz, Vainstein, Prentiss, Howard, and others, new fiscal and service relationships among libraries of the same type and of different types are gradually breaking down the distinctions which have been preserved in traditional library statistics. For example, the National Center for Educational Statistics is coming to the realization that the categories which shaped their publications on public library statistics (i.e., population served—25,000-99,999; 100,000 and over, etc.) are now totally meaningless and unworkable. Because of emerging system and network relationships, the same library may serve different sized populations according to different functions.

In order to assess the gamut of resources and services available to a given population, from a variety of library units and at varying levels of sophistication and intensity, we must combine bits of library data in ways hitherto untried. Not only is this need apparent as library systems and information networks proliferate and become more complex, but it can be observed within the single library unit which may simultaneously serve a number of purposes—the institutional library, for example, which serves the public and academic needs of inmates as well as the special, technical library needs of

its staff; or the combinations of public, school, and special library services found in the same agency in the military; or the unpredictable mixtures found in State libraries. Considerably more flexibility is needed to sort out these data and to arrange them in a way that is statistically significant for the use made of them.

The computerized data bank affords the degree of flexibility of data manipulation which is increasingly called for as libraries and library systems evolve.

The need for research and for correlation of research findings and the scarcity of data which have been standardized to a degree which make them acceptable to multiple research applications are covered in the Beasley research overview paper. These concerns lead him to conclude that a data bank is central to any program of general research in library service. The ability of the electronic data bank system to cope with a mass of detail, yet provide maximum flexibility of access to any category, obviously characterizes the kind of tool needed to satisfy the research needs which have been identified.

One need not belabor the point to conclude that the data bank approach affords the ultimate, long-range solution which a nationwide, comprehensive library statistics program should provide. NCES has for some time set its sights upon computerization of its activities and is moving in this direction.

But the development of a data bank system will require more than a large memory capacity machine, the sums needed for hardware and software, and the personnel to convert data to machine readable form. It is absolutely dependent upon standardization of terminology, inquiry into what should occupy the computer cells, systematic collecting and editing of data, and the cooperative relationships illustrated in the foregoing diagram and explanatory test. The data bank will involve the interlocking, coordinated efforts of the many advisory groups which have been cited and the designing of an electronic information system by highly skilled professionals. Beasley's suggestion that a consortium of agencies—Federal, State, and private—working together as a data bank system, each bearing part of the responsibility, the workload, and the financing, should be explored carefully and would constitute a highly useful research project in itself. In the meantime, the steps taken now should be guided with the ultimate data bank solution in mind.

Appendix A

OVERVIEW PAPERS

1. Professional (G. Flint Purdy)
2. Federal (John G. Lorenz)
3. Legislative (Paul Howard)
4. State (S. Gilbert Prentiss)
5. Library Networks and Systems (Ruth L. Boaz)
6. Research (Kenneth E. Beasley)

PROFESSIONAL OVERVIEW

by G. Flint Purdy[1]

From the beginning of librarianship in America, we have understood that *facts* are necessary raw materials for professional understanding and progress, and that "when we can measure whatever we are speaking about, and express it in numbers, then we know something about it."[2] In 1876, John H. Eaton, Commissioner of Education, wrote in his letter of transmittal for the monumental *Public Libraries in the United States of America: Their History, Condition and Management*.

> The extreme diversity in the manner of conducting the business and keeping the records of educational institutions of all classes in the country rendered that harmony of results essential to useful comparison and correct inference difficult of attainment, and required (a) sound discrimination in selecting the points of the various systems concerning which inquiries should be addressed; and (b) great care in devising nomenclature, which, suitable for general adoption, should mean the same to all.

In 1877 the American Library Association's Cooperation Committee said, in its fifth report:

> The great diversity in the arrangement of library statistics as presented in the annual reports of the . . . libraries of the country, suggests to every inquirer into the 'true inwardness' of these institutions, the advantages that would accrue to all interested parties from the adoption by *all* libraries of uniform tables for the statement of receipts and expenses, and also the statistics of circulation, accession and general library work. Uniformity of headings is necessary for comparison between libraries, as well as to obtain true averages in various departments of work. With this view, the following model for statistical reports has been prepared, as covering, to a large extent, the principal features of library work.[3]

Successive generations of librarians have wrestled with the same questions. That they can be simply stated belies the fact, however, that they pose very real political problems and necessitate considerable soul-searching. The burden of this position paper is really built around the following questions, each of which I shall discuss at greater length further on, for I feel we must take all these seven points into account if we are to achieve a synchronized and realistic comprehensive system for library statistics:

1. *What quantitative facts about libraries, library services, and library constituencies do we need, and for what purposes?*
2. *Which of the needed facts can be procured on the scale implied by their purpose?*
3. *What are the priorities?*
4. *How can we standardize reporting?*
5. *Who is to assemble, analyze, interpret, and report the needed facts?*
6. *How frequently must they be reported, and how "fresh" must they be to serve their purpose?*
7. *So what? What do we make of the facts once we have them?*

Most of our attention has been directed toward the first four questions, but in recent years question 6 has produced a considerable amount of discussion. Question 7 has been rather surprisingly neglected in the literature, except for an occasional expression of doubt. But there have been several concerted attempts to attack all seven of these considerations which bear mentioning, as well as some which are limited to only one or two of them.

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[1] Deceased, September 1969. Dr. Purdy, Director of Libraries, Wayne State University, was long associated with library statistics, serving as Statistics Coordinating Committee chairman (American Library Association, Library Administration Division, Library Organization and Management Section) for many years, and as chairman of the advisory committee to the Statistics Coordinating Project that produced the *Handbook*. His personal battle to wrest order from chaos in library statistics covered a span of more than 30 years. Many of his contributions have gone unsung, and his wisdom and zeal will long be missed, as will his wit and diplomacy.

Editing of this paper was done subsequent to his death and thus did not have the benefit of the author's review. It was done, hopefully, in the generous spirit in which he gave his blanket permission. (Editor)

[2] Ralph Blasingame in American Library Association, *National Conference on library Statistics*, p. 87.

[3] ALA Cooperation Committee, "Library Statistics," *Library Journal 1* (August 31, 1877): 429-31.

Back in 1946, a 2-day conference was held in Washington, D.C., at the invitation of the United States Commissioner of Education. Its purpose was "to consider an overall program for the collection and publication of library statistics by the U.S. Office of Education" and "to provide an opportunity for a discussion of the statistical needs and problems of school, college, university, public, governmental, and special libraries in their relation to the program of the Office." The tentative report of this conference[4] is, unfortunately, in typewritten manuscript form, but a review of it shows that neither the need nor the problems have changed greatly.

In 1959, the Federal Relations Committee of the American Library Association recommended:

> That the Executive Board immediately request the Office of Education to provide funds to enable the Library Services Branch to put in full operation its program to collect statistical and other data important to the development and operation of libraries. This Committee further suggests that each division of ALA indicate by May 15 the kinds of statistics which they believe necessary and which can be assembled on a national basis.[5]

The last sentence of the recommendation was duly implemented and eight units of ALA responded. A copy of the resulting report (see appendix C) is relevant both historically and substantively. From that report evolved a proposal for a survey directed toward the development of a national plan for the collection, analysis, and dissemination of library statistics. The proposal evolved through a number of versions (one of which is presented as appendix D) and finally resulted in *Library Statistics: A Handbook* . . . .

Considering limitations, particularly financial, the *Handbook* should be regarded as a good and useful tool. We were remarkably fortunate in securing the services of a highly competent project director and a well qualified and conscientious staff. The *Handbook* is a good start: it identifies the traditional, measurable facts, discusses their relevance, and proposes standard definitions. Primarily, the *Handbook* is addressed to the preceding question 4, dealing with standardization: secondarily, to the first three questions.

The most important of all the questions enumerated, however, is the first: *What facts do we need?* The literature, including the *Handbook,* shows relatively little evidence of concern for this question, despite the fact that librarians, their governing authorities, appropriating bodies, and the informed public continue to question the relevance of our traditional measures. Quantitative facts collected tend to be determined more by practicability than by need.

This point received a considerable amount of discussion at the National Conference on Library Statistics in 1966, where there was much talk of the need for "qualitative statistics" (a direct contradiction of terms, it seems to me, or at best, bad rhetoric). Ralph Blasingame phrased the fundamental question: "Are we measuring the things which are the substance of what we are dealing with?"[6] David Palmer devoted a paragraph to the factor of accountability, saying: "We must be able to illustrate what public good has accrued from the investment" of public funds.[8] This point was further emphasized by Ed Wight in his paper at the 1968 Graduate Library School Institute on *Library Networks: Promise and Performance*[7] where he urged that we devise "measures of performance." While I hasten to aver that I do not believe that everything of value is measurable, the fact that devising such measures is not easy is no justification for failing to devise them.

One avenue of approach is suggested by what Dick Chapin calls the user's "frustration quotient," though perhaps "satisfaction quotient" would be better public relations. I wrote a modest piece for the Wilson Festschrift issue of the *Library Quarterly* in which I pointed out the questionable relevance of the traditional evaluative criteria for university libraries, and suggested other approaches to evaluation.[8]

Appraisal at the local level is still a major purpose of library statistics, perhaps second only to salesmanship (which isn't the same thing). It is possible that the best salesmanship over the long run is that which is honest: where performance is actually measured against purpose. So called "program budgeting" will certainly push us in

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[4] "Conference on Library Statistics" (tentative report of a conference held March 4-5, 1946, Washington, D.C.) typewritten manuscript (Washington, D.C.: U.S. Office of Education, 1946).

[5] Citation not identified by Dr. Purdy.

[6] American Library Association, *National Conference on Library Statistics,* p. 87.

[7] Ibid., p. 47.

[8] "The Evaluation of University Library Service," *Library Quarterly* 12 (July 1942): 638-43.

that direction. Certainly our conventional measures have been something less than spectacularly successful sales documents.

My questions 2 and 3 are not unimportant, but they are secondary. Number 2 (practicability) is a tough one in relation to what I have been talking about. Many of the facts which we desperately need are either not measurable at present, or not procurable in standardized form on a suitably widespread basis. A variety of special studies will be required to devise measures and collect facts from samples drawn from the universes.

Take technical services costs, for example. I don't think there is any question about the need for measurement and standards in this area. Heretofore we have thrown up our hands, alleging that the complexity of the processes involved and local variations in organization, standards and practice make meaningful statistics impossible—or not worth the cost. The latter may be true, though I doubt it, but the former certainly is not. There is no reason why standard components of the technical processes cannot be isolated and unit costs determined. I think that accountability demands that this be done—for homogeneous categories of libraries (if there is such a thing).

Priorities (point 3) have also been determined largely by considerations of practicability, which is certainly a dubious criterion. I once thought that importance of need could be determined by asking people: consumers of library statistics. I think it was Morris Ullman of the Office of Education who pointed out that people are unable to tell you what they need. The facts which are likely to be top priority are facts which have never been measured, so few people will think of them. Priorities will depend upon purpose and specific category of library. Local salesmanship as a purpose may suggest one priority list, Federal lobbying quite another.

The *Handbook* constitutes a substantial step toward standardization. I hope that subsequent editions will produce working definitions which will further increase comparability and the validity of norms. I don't know a better approach to the attainment of the objective of standardization. A more difficult aspect of the problem is that of securing conformity in practice. Deviations result from inertia (in continuing a traditional deviant definition) carelessness, dishonesty, and the fact that we all have more to do than we can handle and the importance at exact recording and reporting doesn't seem to merit the time which would be required. We will never achieve a hundred percent conformity to standardized definitions, let alone a hundred percent accuracy in recordkeeping and reporting.

We need to campaign for conformity, but I think we need also to relax a little about the degree which is necessary for our purposes. Comparisons between individual libraries are seldom rationally defensible anyway; the uses of such comparisons are sometimes downright dishonest, with persuasion rather than truth the object. Comparisons with norms are usually more valid, and norms are less likely to be significantly affected by individual deviations from standard definitions and by inaccuracies in reporting. Furthermore, as Joel Williams pointed out in his paper "The Comprehensive Program for Library Statistics: a Working Paper" at the 1966 National Conference on Library Statistics and in the chapter "General Concepts" in the *Handbook*, norms can be established by sampling techniques which are far less costly than the comprehensive coverage which we have been demanding of the Office of Education.

During recent years our efforts have been directed toward persuading the U. S. Office of Education to collect and publish all kinds of library statistics; i.e., to get them to do the total job for us. I have grown doubtful about the wisdom and the practicability of such concentration of responsibility. It is probably true that only big Government can support large-scale collection and publication of library statistics. On the other hand, I doubt that the Office of Education will ever do the total job to our satisfaction.

In a manuscript "Draft of Plan for Library Statistics," dated December 6, 1967,[9] Ullman said:

> To rate a high priority in a national plan, data should have significance over a broad area and be needed by a variety of users. If the scope of the data is limited, or the data are of value to only one group, that group must take responsibility for obtaining the information it needs . . . .

Ullman seems to have been thinking of a "national plan" in terms of a plan for central implementation by the Office of Education. On another page in the same document, however, he said:

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[9] Prepared for preliminary discussion by the ALA Statistics Coordinating Committee at its meeting December 14 and 15, 1967.

> . . . the meeting of the needs described here may be the responsibility of different groups. The existence of this national plan should, however, provide a framework for the coordination of effort and make for more efficient use of available resources.

The present project must at least consider the possibility that meeting the needs for library statistics may be the responsibility of different groups and include suggestions as to how these responsibilities are to be delineated and allocated.

About 1940, at Carl Milam's request, I wrote a proposal for the establishment of a research office at the American Library Association. At that time, ALA responsibility for statistics was taken for granted, but resources permitted only meager coverage of libraries and types of data. In my view, some part of the total responsibility for meeting needs for library statistics can properly be assigned to ALA, and with a higher priority than some of its present programs. I still think that we desperately need a research office at ALA headquarters, and statistical studies of such matters as salaries, costs, and performance would seem more logically ALA responsibility than Federal Government responsibility. Indeed, I see no other agency than the American Library Association to which to assign primary responsibility for the collection and interpretation of quantitative data in such areas.

The U.S. Office of Education can be expected to provide only very limited interpretation of the statistics which we can properly expect them to collect. An ALA research office, competently staffed, should be assigned primary responsibility for attempting answers to the question, "So what?" This question is vitally important, and nobody else is going to attempt to answer it in any comprehensive and recurring fashion unless it be other national professional organizations. At this point, it would be wise to consider similar responsibilities for the Special Libraries Association, the Medical Libraries Association, the Association of Law Libraries, and others in gathering and interpreting certain statistics for their special constituencies. The Association of Research Libraries is unlikely to discontinue its modest annual statistical report; conceivably, it should do more.

Again, with the thought that it is impractical and impracticable to place the entire burden of a nationwide comprehensive library data system upon the U.S. Office of Education, the role of State agencies should also be explored and carefully delineated. In many states, they have a legal responsibility for collecting statistics. Standardization of methods and definitions would permit summaries and analyses beyond the scope of the Office of Education.

I skipped my sixth question, concerned with frequency and recency. In 1946, the ALA Statistics Committee attempted to prescribe a desirable frequency for each allegedly needed fact, for each type of library. Quadrennial or quinquennial collection of a large number of facts was proposed for all the libraries of a given type. Annual collection would be restricted to a smaller number of facts from representative *samples* of each type of library, and special studies would be made of such matters as costs. I think that some such pattern as this still makes sense.

Annual collection of certain data from all members of certain universes will certainly continue at the State level, and smaller universes such as the Association of Research Libraries membership will also continue to publish annual data. But I doubt that such collections are a legitimate function of the Office of Education, or of the American Library Association. It is highly desirable that such collections be compatible, and if they were to be incorporated in a national data bank, this would be essential.

Academic librarians, particularly, have made much in recent years of the alleged necessity of *prompt* access to certain data each year from all of the libraries of their own self-selected universes (presumably for budget arguing and self-appraisal purposes). Each librarian has a relatively small list of libraries with which he compares his own library with respect to expenditures for certain purposes, growth of collection, staff, salaries, and the like. There is no question about the importance of this desired data to the librarians who use them, or to the support and development of their libraries. There *are,* however, legitimate questions as to whether each library needs the entire universe from which to select its own private list for comparison. Would not sample-based norms for homogeneous universes be possible and still serve the purposes adequately? Is the need for prompt access which enables each librarian to select his own universe worth what it costs to satisfy it? If it is, to whom should responsibility for providing such access to such data be assigned?

I have not dealt systematically with the purposes served by library statistics; this has been done elsewhere. But I

should like to add my own concern for research (without defining the term) to that of Kenneth Beasley's which follows. Research, explicitly, is a major purpose for library statistics, and in the long run, is probably even more important than those of persuasion or local evaluation.

Librarianship has been slow to exploit measurement as a professional tool. In this respect, it can be said to suffer from "retarded development." Collectively, we never have realized the potential value of measuring that which is measurable and relevant. Our concern with "statistics" has been pragmatic, and largely superficial. The problems have remained the same, and we have made little progress toward their solution.

In my judgment, useful national planning, at this point in time, should take into account at least the following three considerations which have been largely neglected in the past:

1. *Some of the measurable facts which we most urgently need may well be facts which we have made little or no effort to collect, or to measure, or even to identify, in the past;*

2. *The Federal Government may not be the appropriate agency to collect, analyze, interpret, or publish all of them;*

3. *We may find that greater use of sampling and norms will help solve some of our problems of practicability and cost.*

FEDERAL OVERVIEW

by John G. Lorenz

The collection of national statistics of many types and varieties is one of the most important responsibilities of the Federal Government.

Some of the principal types of statistics as specifically identified in the *U.S. Government Organization Manual* are: agricultural, business, carriers, census, construction, cost of living, cotton, educational, employment, fisheries, foreign, government services, health, housing, industrial, labor, manpower, manufactures, mineral, monetary, population, price, research, social security, State and local governments, tax, trade, transportation, and wage.

Some of the principal agencies of the Federal Government with a primary responsibility for statistics are:

Bureau of Accounts and Statistics, Civil Aeronautics Board

Bureau of Labor Statistics, Department of Labor

Division of Research and Statistics, Federal Reserve System

National Center for Educational Statistics, Office of Education, Department of Health, Education, and Welfare

National Center for Health Statistics, Public Health Service, Department of Health, Education, and Welfare

Office of Research and Statistics, Social Security Administration, Department of Health, Education, and Welfare

Statistics Division, Internal Revenue Service, Department of the Treasury

Agricultural Statistics Division, Department of Agriculture

Research and Statistics Division, Selective Service System

Reports and Statistics Service, Veterans Administration

The Bureau of the Census, of course, has as its primary mission providing basic statistics about the people and the economy of the Nation in order to assist the Congress, Federal, State, and local governments, business and industry, and the public generally in planning, carrying out, and evaluating public and private programs. It collects, tabulates, and publishes a wide variety of statistical data and provides statistical information to Government and private users. This Federal agency first began collecting library statistics in 1850 when it reported on public school, Sunday school, college, and church library statistics in 31 States, the District of Columbia, and four territories including Minnesota, New Mexico, Oregon, and Utah. This Census report also included a tabulation for 31 States and the District of Columbia on State libraries, social libraries, students' libraries, libraries of academies and professional schools, and scientific and historical societies. The latest general Census, the 1960 decennial, does not illustrate any progress in national library statistics from this source but rather retrogression since no detailed library statistics are included. Librarians are only included as one of the occupations to be analyzed as part of the "experienced civilian labor force."

In the broader field of education, the Office of Education was established in 1867 to collect such statistics and facts as shall show the condition and progress of education, to diffuse such information as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise to promote the cause of education. The Office included libraries in its field of responsibility and in 1876 published one of the most comprehensive reports on libraries ever compiled, *Public Libraries in the United States.* Library statistics in this publication included college libraries, information on printed catalogs, public library statistics on appropriations, benefactions, loss and wear of books, and circulation by various classes of material. This remains an amazing compilation of information. If we knew as much about libraries today as was compiled and published in 1876 we would be in a much better position to plan for future library development.

The library services unit was established in the Office in 1937 as a result of language inserted in an appropriation bill. That language read in part: "For expenses necessary for the Office of Education, including surveys, studies, investigations and reports regarding libraries...." This provision has been repeated in every appropriation bill

for the U.S. Office of Education from that year to this, clearly indicating that the Office has this specific and definite responsibility and part of the salaries and expenses appropriation of the Office each year is expected to be used for this purpose.

The new library services unit in USOE took its statistics collecting responsibilities seriously and, following its formal establishment in 1938 under Ralph Dunbar, the first unit chief, began nationwide statistical surveys on public, college and university, and school libraries. These were done at intervals of 5-7 years along with shorter annual surveys of public libraries serving over 100,000 population. During this period, in response to the need for annual statistics of college and university libraries, the American Library Association took the responsibility for collecting and publishing such data as complete and accurate as a professional association with volunteer membership labor could manage.

The passage of the Library Services Act in 1956 enabled the Office of Education to strengthen the staff of the Library Services Branch, not only to administer the act but to enable it to do a better job of research and consultant services including statistical studies and reports. With this expansion, the Library Services Branch was able to assume the responsibility from the American Library Association for the annual collection of college and university library statistics on a comprehensive and official basis. In addition, the collection of statistics of State library administrative agencies was undertaken as a measurement of the impact of the Library Services Act.

The Federal responsibility for educational statistics was considerably sharpened and made more specific by the passage of the National Defense Education Act of 1958 with title X providing for the "Improvement of Statistical Services of State Educational Agencies" with the following specifications:

(a) For the purpose of assisting the States to improve and strengthen the adequacy and reliability of educational statistics provided by State and local reports and records and the methods and techniques for collecting and processing educational data and disseminating information about the condition and progress of education in the States, there are authorized to be appropriated for the fiscal year ending June 30, 1959, and each of the nine succeeding fiscal years, for grants to States under this section, such sums as the Congress may determine.

(b) Grants under this section by the Commissioner shall be equal to one-half of the cost of State educational agency programs to carry out the purposes of this section, including (1) improving the collection, analysis, and reporting of statistical data supplied by local educational units, (2) the development of accounting and reporting manuals to serve as guides for local educational units, (3) the conduct of conferences and training for personnel of local educational units and of periodic reviews and evaluation of the program for records and reports, (4) improving methods for obtaining, from other State agencies within the State, educational data not collected by the State educational agency, or (5) expediting the processing and reporting of statistical data through installation and operation of mechanical equipment. The total of the payments to any State under this section for any fiscal year may not exceed $50,000.

This law has improved the collection of school library statistics in some States but the term "educational statistics" has not been generally applied. As a result statistics of other types of libraries or library services have not been similarly strengthened at the State level.

In the Library Services Branch, the creation of a new position of research library specialist in 1963 made possible the collection of some special library statistics for the first time. Data on library education programs and library manpower were brought together by a new library education specialist position.

Plans for cooperation with the States in collecting public library and college and university library statistics had begun to be worked out so that the advantages of conformity of State and Federal library statistical standards could be achieved as well as the advantages of decentralization of collection and centralization of analysis. Plans were also made for conducting future public and school library surveys using sampling techniques.

These plans were interrupted in July 1965 by a reorganization of the USOE which created a National Center for Educational Statistics to which were transferred the staff of the Library Services Branch that had carried out the library statistical program. The responsibility for the program was also removed from the Branch. The primary objective of the Center, however, was placed on educational statistics related to the

evaluation of new educational grant programs. The Center did make a few grants to outside agencies to complete the collection and analysis of college and university library statistics and a survey of special libraries serving the Federal Government.

Some efforts have been made to have the U.S. Bureau of Census collect more library statistical data in special or decennial censuses but the many demands on the Census for specialized data rather preclude great expectations that such collection can ever be in the detail needed by Federal, State, local and institutional library administrators and their governing bodies.

Federal library agencies would, of course, be responsible for statistics of their own agencies. The Library of Congress has detailed statistics of its own programs. Now that it is administering the National Program for Acquisitions and Cataloging under title II-C of the Higher Education Act, it also has been collecting statistics from participating research libraries on the impact of that program.

The National Library of Medicine has also conducted a survey of medical libraries in the United States, and the National Agricultural Library has a similar interest in agricultural libraries in the United States.

The Federal Library Committee, created in 1965 as the result of the cooperation of the Library of Congress and the Bureau of the Budget, with a grant from the Council on Library Resources, has promoted the development and improvement of Federal library statistical information. The Committee was influential in establishing a cooperative arrangement with the USOE National Center for Educational Statistics under which the Committee prepared survey forms with the assistance of the Office of Education which were in turn circularized to Federal libraries for response. The Center then contracted with the University of Wisconsin at Milwaukee for the editing and processing of the returns which were published in 1968 as the *Survey of Special Libraries Serving the Federal Government.*

The Federal Government needs national library statistics to determine at any particular point in time what the condition and progress of the various types of libraries and library services are, how these facts relate to national needs, what Federal library programs and Federal library support are necessary. Such statistics are also needed to evaluate those programs already being administered and funded and to provide information to State, local agencies, institutions, governing boards, professional associations, and other groups and individuals concerned with libraries so that sound judgments can be made on which to base all library development and improvement programs.

Firm and competent planning is needed at the national level so that library statistics collected, analyzed and disseminated will be as reliable, valid and consistent as possible in order that national totals can be projected and reliable judgements made based upon them. Standardization of statistical terms and definitions are essential to achieve uniformity of reporting and analysis which will result in comparable data. At the suggestion of the Library Services Branch in the U.S. Office of Education, the ALA Statistics Coordinating Committee prepared in 1960 a proposal for a National Survey of Library Statistics which would provide a systematic approach for coordinating and unifying the national needs for library statistics. The proposal resulted in a grant from the Council on Library Resources with supplementary assistance by the National Science Foundation and the National Library of Medicine for the development of a handbook and the formulation of a comprehensive program for the systematic collection of statistics for all types of libraries. The essential role of the Federal Government and specifically the U.S. Office of Education in this basic enterprise is evidenced by the fact that the Director of the project was drawn from the staff of the statistics unit of the U.S. Office of Education and several staff members of the Library Services Branch served in key roles in the work of the project.

Since the potential need for library statistics is great and resources to produce the needed statistics will usually be less than that required, a wisely and carefully constructed national program of essential library statistics must be developed specifying types of libraries and programs to be covered, periodicity, degree of detail and analysis, potential for sampling techniques, and the sharing of responsibility and costs between Federal, State, and local levels. An interesting proposal based on sampling was made at the National Conference on Library Statistics in 1966. The Library Services Branch and the National Center might establish a team of experts—two to three outstanding librarians, an expert in research management, statistics and computers, an urban social scientist. This group would plan and implement a small, but strategic national network of statistical research teams placed permanently in selected libraries across the country, to collect national information. Perhaps a

hundred libraries would be involved, representing a scientifically selected group in the various categories of libraries.

These local teams might vary in size and be persons trained in graduate library schools and exposed to pre- and inservice programs in other disciplines. The teams could be distributed on the basis of market areas, types of collection, etc. The libraries could be typical of X number of libraries of which they are a prototype. The teams would be financed by Federal funds, but be an integral part of local library staffs. Their job would be to compile and analyze and collect local library statistics called for in a plan developed by the national team of experts.

There is no doubt that the collection of library statistics by the Office of Education has already played an important role in the wider use of standard library statistical terms and definitions at State, local, and institutional levels. This has been partially accomplished by thorough review of Federal statistical forms while still in draft form with responsible professional library groups and leaders before review and approval by the Bureau of the Budget. Through conferences, meetings, articles, and other forms of communication, OE library officials have had considerable success in having State library agencies and local and institutional libraries adopt standard library statistical terms and definitions. With continuing and hopefully growing involvement in the collection and analyses of library statistics there is every reason to believe that this trend toward the widest possible use of standard terms and definitions will continue.

The responsibility for developing a national library statistical program rests clearly with the U.S. Office of Education. If a National Commission on Libraries and Information Science is created, the review and full support of this body in the implementation of such a national program would be most helpful.[1] The National Conference on Library Statistics made a similar recommendation in June 1966, several months before the National Advisory Commission on Libraries was created by President Johnson in September 1966. The Conference further recommended that a National Commission have a subgroup on library statistics.

In pursuing their studies and deliberations, the National Advisory Commission on Libraries was appalled at the lack of adequate library statistics. Their report includes the following references and recommendations regarding library statistics: "...The National Center for Educational Statistics must be in a position to collect on a continuing basis the pertinent and adequate library data...urgently required and not now available...for an appraisal of present programs and formulating plans for the future."[2]

The National Center has recently established a unit and designated a staff with the responsibility for library statistics. It is to be hoped that this will form the nucleus of a developing program of national library statistics so badly needed for national library development.

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[1] Editor's note: This paper was written prior to the establishment of a National Commission on Libraries and Information Science in July 1970.

[2] National Advisory Commission on Libraries, *Library Services for the Nation's Needs*, p. 43.

LEGISLATIVE OVERVIEW

by Paul Howard

Legislation in the United States occurs at three levels—local, State, and national. At each level the legislative process is basically the same. A problem is encountered, a program is envisioned, supporting groups are organized, supporting data and information are developed, legislative sponsors are indoctrinated, staff work is initiated, an ordinance or bill is drafted, it is introduced, is referred to a Legislative Committee, additional staff work is done, hearings are held, a report is made, a ruling is established for consideration by the Legislative Body, the legislation is debated, a vote is taken, the bill is forwarded to the other Legislative Branch or to the Executive. With the signature of the Executive, the ordinance or bill becomes law. The program so authorized is now in its most critical phase. To become effective, legislation usually requires the appropriation of funds. The budgeting process is fully as complicated, and is often surrounded by more secrecy than the legislative process. Legislative authorization is not always compulsory and may be negated through failure in budgeting or in appropriating. The budgeting and appropriating processes are often much more difficult than authorizing legislative processes.

On the national level, the budgeting and appropriating process contains the following basic steps (a very simplified version). At the agency request, each of its components develops an estimate and justification for its proposed expenditures. (This is usually 16 to 18 months before the beginning of the appropriate fiscal year.) These estimates are consolidated and reviewed at the bureau level, then consolidated and reviewed at the agency level. Agency budgets are transmitted to the Office of Management and Budget (formerly the Bureau of the Budget), usually in September, nine or ten months before the beginning of the fiscal year. The Office of Management and Budget reviews agency requests in the light of overall program requirements. Hearings are held by Budget Examiners in order to allow agencies to defend their requests. The Office of Management and Budget consolidates and revises the appropriation requests and recommends a budget to the President.

The consolidated budget is transmitted to the Congress together with the budget message. This occurs in January, approximately one year after the start of the budget process. The budget then goes through the legislative process just described.

For the purpose of this overview, the steps mentioned will be considered to comprise the legislative process. Actions entirely within the purview of the Executive will not be considered as legislative. Although there may be variations of this procedure and in some cases, especially at the local level, a telescoping of some steps may occur and others may be especially emphasized or added. In many cases the steps are taken in different sequence. Supporting groups may be organized long before a problem is discovered. In fact, they may discover or create the problem, or at least call attention to its existence.

Library legislative programs have long been handicapped by lack of adequate statistical data. These deficiencies arise from lack of a coordinated program, lack of continuity, lack of relevance, and from lack of competence in statistical techniques.

As the legislative process and the framers of legislation grow more sophisticated, the demand for supporting data and information becomes more exacting. Sale techniques become, if not less emotional, at least less flamboyant. The presentation of facts and supporting data becomes more and more necessary at each step of the legislative process.

Such information is of six kinds:

1. General description of a situation and analysis of problems involved.
2. Illustrative examples.
3. Information concerning extent of need.
4. Quantitative measures of the effect of previous actions in the same or similar situations.
5. The nature of legislative solutions proposed.
6. Estimates of the effect of proposed legislation.

Four of these kinds of information (numbers 1, 3, 4, and 6) *require* the use of statistics, while in the case of the other two, statistics can be of definite value.

In the early days of ALA's national legislative program, statistical data were even less developed than now. For this reason, the first version of the Library Services and

Construction Act was the Library Demonstration Act, and the proposed program among other things, was designed to produce the data necessary to support permanent legislation. In 1946 the author's article "Whither ALA"[1] attempted to define the responsibilities of the library associations and of the Government in national library program development. Responsibility for statistical research was logically assigned (in the author's opinion) to the Government. This was based on the theory that the Government could, and would, develop a more consistent, long-range, and comprehensive program of statistical research than the various professional associations could.

At first, it appeared that this assumption was valid. The Library Services Branch of the Office of Education continued its efforts to develop a comprehensive statistical program covering all types of libraries. Passage of the Library Services Act in 1956 was enough of a stimulus that the continuing programs of the Branch were also enhanced and the statistical program appeared to be well established and developing in the manner planned and requested by the associations. However, in 1965, a reorganization of the Office of Education transferred all statistical work to the National Center for Educational Statistics. This was followed by a series of reorganizations which, with other factors, including a change in policy on collection methods, significantly hampered library statistics activity for about 3 years; but since that time, the establishment of a Library Surveys Branch in the National Center, which concentrates exclusively on the collection of library data, is reversing this trend.

The Report of the National Advisory Commission on Libraries stresses the need for a strong statistical program and emphasizes the difficulties it encountered because of the lack of statistical and other data upon which findings and programs can be based.[2] One of its principal recommendations is the establishment of an institute for the purpose of remedying this type of defect.[3]

Although there has been much justified criticism of the nature and quality of library statistics, it is noteworthy that the greatest surge of library legislation occurred from 1956 to 1965 when the statistical program of the Office of Education reached its peak. It may be argued that the same pressures which produced the legislation also produced the statistical program.

It took 10 years to pass the first Federal aid to libraries program amounting to $5,000,000. In the next 10 years this was increased to approximately $630,000,000. Among the many factors which influenced this build-up, effective use of available statistics was among the more important. This chicken and egg argument can be extended indefinitely without resolution. The pertinent point is that legislation and statistics go together.

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[1] Paul Howard, "Whither ALA," *ALA Bulletin* 40 (October 1, 1946): 304-308.

[2] National Advisory Commission on Libraries, *Library Services for the Nation's Needs,* pp. 9, 43.

[3] Ibid., p. 39.

STATE OVERVIEW

(The State as a Collector of Library Statistics)

by S. Gilbert Prentiss

The role of the State in matters of library statistics is a dual one: library agencies at the State level are both collectors, or gatherers, of statistics about certain other libraries within the State, and they are the producers, or generators, of statistics about their own library activities. The two functions are sufficiently disparate to require separate treatment. The subject of this chapter—the collection, and to some extent the interpretation and publication by the State, of library statistics—must in itself be a major consideration in any planning for a nationwide library data system, especially if it includes statistics about all types of libraries.

It should be clearly understood that "the State" or "State library agency" as used herein refer to all library functions at the State level of government, whether they happen to reside in a State library, a State library commission, an education department, a State council for higher education, or any other State agency by whatever name. While the administrative problems of statistics gathering may indeed be complicated no end by the immense range of organizational variations which exist in the States, the principles dealt with here are the same in any case.

Traditionally, one of the basic responsibilities which most State library agencies have made very much their own has been the collection, compilation, and publication of statistics about at least some part of the library effort in their respective States. In fact, the new *Standards for Library Functions at the State Level* sets forth the following:

> *The State should gather, compile, interpret, publish, and disseminate annual statistics on all types of libraries in the State, including the State library agency. The State library agency should be a central information source concerning the libraries of the State.*[1]

The elaboration of this standard adds:

> Statistics are a tool in State planning and development for which the State library agency has a direct responsibility. This responsibility and the requirement that libraries furnish pertinent information should be written into State law. It should be possible within every State to turn to State government for information about all library resources in the State including those of the State library agency. The annual information should be analyzed to determine trends and needs in library service, and should be distributed promptly to all libraries, library groups, and appropriate government offices as an aid in planning activities. Whenever possible, the gathering and tabulating of library statistics should be done in conjunction with other agencies of government which have data equipment.[2]

It is worth noting, too, that the standard following the above recommends that:

> *The annual statistics gathered by the individual States should be designed to provide a common core of data among the States and for the Nation.*[3]

This recommendation is amplified as follows:

> To provide the information needed for research and library development at the local, State, and national levels, the State library agencies should collect and publish data comparable among the States. This in turn will provide useful national information. The statistical programs should be coordinated with those of the U.S. Office of Education, which has responsibility for nationwide library data. Comparability can be obtained by using the definitions in *Library Statistics* [the *Handbook*] and *USA Standard for Library Statistics.*[4]

In spite of the best efforts of the State library agencies, they would be the first to admit that their accomplishments are extremely spotty: there is little or no

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[1] American Library Association, *Standards for Library Functions at the State Level* (Chicago: American Library Association, 1970), p. 3.

[2] Ibid.
[3] Ibid.
[4] Ibid.

statistical coordination among the States or with other library agencies; no State library agency collects statistics from all types of libraries to any significant extent; certainly no State can claim assurance that the statistics it is collecting are the most important ones to be collected; and these are only a few of the problems.

Setting aside for the moment the fact that the States are already partially engaged in the task, and that the American Association of State Libraries recommends a continuation and expansion of that involvement; are there any principles or guidelines that can be laid hold of to help decide what, if any, of the statistics collecting job should most appropriately be assigned to the States?

Since there is no unit of government below the State level, other than possibly a regional library system, which could be assumed to have any responsibility for the areawide collection of library statistics, any sensible alternatives are limited to: the State library agencies, the professional associations in the respective States, the Federal Government, the national library associations, or some combination of these. Practically speaking, since the professional library associations at the State level are not staffed to even begin to cope with a job of this nature and magnitude, the real choices are between the State library agencies and whatever national agency or agencies are given the responsibility at that level. Furthermore, since common sense decrees that there will be some major responsibility for nationwide standardization of library statistics and nationwide collection and interpretation at the national level, the decision is really reduced to whether the State library agencies properly have some kind of intermediate role in this nationwide effort and, if so, just what that role should be. Some of the considerations might be listed as follows:

For State Level Collection:

1. The increasingly important role of State government in the organization, administration and support of library programs,[5] makes it a persuasively logical base unit in the job of collecting, compiling, and interpreting statistics. Statistics about the libraries in a State are an essential tool in nearly all of the State library development agencies' activites within a State.

2. The State library agencies will have established long-standing working relationships with most of the libraries involved, which should facilitate the job of statistics collecting. In most States, in fact, the State agencies will be in a position to bring some pressure to bear where that is necessary.

3. Because the State is closer to the libraries than a national agency could be, it can better deal with the questions, misunderstandings, and assorted problems which will inevitably arise in statistics collecting.

4. For the same reasons, the State will more readily detect the errors which are bound to occur with some frequency in statistics collection.

5. Because of their closer knowledge of the situation, the State library agencies will have an advantage over (the) Federal, or national, agencies in the interpretation of many areas of statistics of library activity within a State.

6. One might hope that if statistics are gathered at the State level there will be less lag in their availability within the State for urgent planning, legislative and other purposes.

7. Most States are large enough in population and the number of libraries serving that population to provide an adequate statistical universe for many purposes, and there is generally in State government the necessary expertise and equipment to handle the job. (Where this is not the case, possible combinations of States might be feasible.)

8. There are bound to be individual differences from State to State in many aspects of library development, and the conditions bearing on that development. These differences are most likely to be satisfactorily accommodated and understood (in a statistical context) when a State bears a basic responsibility for statistics gathering and can control both the collection of any additional data that might be needed, or additional manipulation of data, when and where this seems desirable.

9. If all State library agencies had a clear-cut and important responsibility to the national Government as part of a nationwide system for statistics collection, it might tend to strengthen them in other roles which they should be performing in their States.

[5] The functions of State library agencies are commented on at some length in the paper "State Libraries (the State as a Producer of Library Statistics)" in appendix B.

10. While it would seem to be primarily a national responsibility to develop a nationwide library data system and to devise the kind of statistical measurements so sadly lacking from the library scene at any level of government, it is likely that the amount of attention and the degree of inventiveness and imagination brought to bear on these problems will be greater if State library agencies are active and participating partners in the statistics process.

Against State Level Collection:

1. The governmental structure and relationships of State agencies having library responsibilities vary immensely, as do the statutory responsibilities and authority of the various States. More often than not there is little or no administrative coordination among these agencies, even within States. Practically no State has any clear legal, or even traditional, charge to concern itself directly or in any depth with all types of libraries – school, public, academic, and special.

2. Many, if not most, State library agencies are seriously undersupported and understaffed. Thus, if the statistics collection function is left to them they might be expected to fail, with the result that there would be gaps in the national statistical picture.

3. The standardization of statistics might be simpler if all libraries were to report directly to a national agency, with no intermediate agent.

What Statistics to Collect?

The specific question of what statistics the States should collect if assigned a collecting responsibility in a nationwide library data system would be determined by the type-of-library groups in concert with the other interests involved. Nevertheless, approaching the problem from a State point of view suggests certain principles of a nationwide system, or emphasis, which bear repeating here.

1. Although it is true that no one can know for certain what statistics are going to prove most useful tomorrow, no statistics should be collected unless a very clear and definite purpose can be seen for them, and even then they should be as few as possible.

2. No statistics should be collected on an ongoing basis if the projected need could be served by some kind of sampling at the time when the specific need arises.

   It is probably too elementary a point to need repeating here, but an immense amount of waste motion now goes into the recording and reporting of statistics on a continuing basis when whatever it is that needs to be learned from them could be learned from a well-designed sample. Highly significant insights may often be obtained even from relatively crude and incomplete statistical data. The question which should determine whether a certain statistic ought to be kept on a continuing basis or otherwise should not be "Would this be a useful thing to know?" but rather, "In terms of the cost of considerations, is this the sensible way to find out what needs to be known?"

3. All library statistics should be judged against the rule that they ought to relate as directly as possible to the measurement of library services and how those services are used. They should help in some way to answer the question, "Are we really accomplishing the defined objectives of our libraries?" Library statistics of today, however, and even library standards, deal almost exclusively with the library's capacity to perform rather than its actual performance.

   The report of the National Advisory Commission on Libraries reinforces this point in its statement that, "Perhaps it is not too soon to propose the criterion of social value as the most important in decisionmaking—whether for broad central planning, more specific planning, or immediate problemsolving."[6]

   Thus, behind the question of what statistics to keep, and essential to its answer in any specific sense, lies the even more fundamental question of the library's function. As Beasley has expressed it in his overview paper, "Qualitative measures of a library are no more difficult to set than for many other private and public services. The major requirements are (a) systematic determination of characteristics . . . , (b) willingness to be critical of

[6] National Advisory Commission on Libraries, *Library Services for the Nation's Needs,* p. 14.

the status quo, and (c) clear definition of function." And, again, "Indeed, one of the most important needs of the profession is a modern comprehensive theory of the function of libraries."

Public libraries, especially, suffer increasingly from this failure to define function and to develop the measurements of use which are the only means of knowing whether the function is being successfully performed. Admittedly, the statistical measurement of some kinds of library use present formidable difficulties, and assessment of the full impact of library use may well be impossible, but one suspects that a more basic reason for the consistent neglect of so fundamental a measurement as use lies in an unsureness or fuzziness about the function of the institution itself.

Assuming that libraries do get promptly about the business of clearly defining function, collectively and individually, it will still obviously be out of the question for the individual library to develop standard measurements of library use which, with the exception of circulation counts, simply do not now exist. Studies which will lead to the development of such measurements must, as Purdy suggests, be one of the earliest priorities for the profession.

Concurrently, then, with the development of a nationwide system for library statistics, there should be a vigorous and imaginative national effort (1) to define library functions, both collectively and by individual types, and (2) to devise standard measurements of library use.

4. Statistical data, generated by research or otherwise, which have validity and usefulness in any substantial number of other library situations should be made readily available throughout the profession. Conversely, data which are of interest to a single library or a limited group of libraries should be collected by and subsequently handled by those libraries.

   In management applications of statistics, especially, it should be possible in the case of many common library operations to reuse the data from one or a few typical library samples, thus avoiding the necessity for a repetition of the same research, recordkeeping, and analysis in library after library. A national statistics plan employing data banks will have much to offer here.

   Cost analysis in libraries, for example, has in the past been considerably hampered by inadequate records and data from which to proceed. In addition to the growing general concern for getting the most library service per dollar spent, there will be an increasing demand for cost information in planning new programs, especially unit costs, as cooperative arrangements among libraries become more common. One of the most satisfactory tools yet devised for implementing practical and equitable library cooperation is the contract, within which the terms of the relationship between two or more libraries can be spelled out to the best advantage of all parties. Since most of these relationships involve the provision of and compensation for a specific service, equity often rests on knowing what constitutes a fair charge. The importance of adequate statistical data for such purposes is obvious.

5. The planning function, in all of its multiple aspects, is unquestionably the foremost reason for keeping statistics. As business and industry and other areas of government demonstrate the advantages of planning, libraries are bound to give more conscious attention to it. The need for planning is no less critical whether it involves library service to a rural village of 150 persons or a sophisticated national program serving science and technology. It is an essential feature of the library effort at every level of government, in every type of library, and in every library program; but planning is the major occupation of most State library agencies.

6. Legislation affecting libraries and library development occurs at all levels of government—Federal, State, and local—and as the Federal and State governments assume more responsibility for the support of library programs, the two problems of library legislation and library support become more closely intertwined. Likewise, with the growing need for systematic sharing of library resources among all types of libraries, more legislation will inevitably be required to establish structures within which cooperative activities may be carried on.

   With the exceptior of planning viable library services themselves, there is no higher demand on the planning function than the conceiving and planning of a statutory framework, extending across all levels of government, which will be truly congenial to the most effective library programs.

Much of what is needed for legislative planning will be the kind of basic data which is needed throughout government, and hence is available rather generally—population statistics and projections, various kinds of tax information, formulas used in support of other government services, etc. The specific library data which will be most useful in addition to general data on expenditures, will be largely the same as that needed in planning for library services and library management—as clear, sharp, and complete information as is possible about the library product and its use, as well as the resources and operations required to turn out the product. Cost estimates of all kinds, will, of course, be fundamental.

7. Library statistics are often sought by library administrators and others associated with libraries for the purpose of comparing some aspect of the library in question, or group of libraries, with other libraries. Since absolute standards are seldom feasible in library matters, the urge to compare oneself with others is certainly understandable and may be quite proper. What is usually meant by the term "standards" —the goal type of library standards —serve much the same purpose, except that they attempt to establish "what ought to be," in contrast to "what is." State library agencies should be able to furnish the data necessary for comparing libraries within a State; and a nationwide, comprehensive library data system should make available the data necessary to compare groups and types of libraries according to a variety of meaningful categories.

The use of library statistics for comparative purposes is most legitimate when planning for better performance is the objective, whether short-term or long-term planning. Purdy's point is well-made, however, that the rather common practice of searching for a library which has some advantage, usually a higher level of support, over one's own library, is something less than the professional approach to winning support, however effective it may be with appropriating bodies.

As is the case with every important use of statistics, the more directly statistics which are to be used for comparison purposes are related to function and use, the greater their validity will be. Obviously, if library statistics are to be used to any extent for comparisons, a reasonable degree of standardization is essential, whether the particular base employed is national in scope, statewide, or smaller.

8. Another major use of library statistics might be called reporting—reporting to anyone who has, or ought to have, an interest in what is happening in library affairs. Such persons may well be the taxpayers who use and support libraries; they may be the legislators who have made certain programs possible; or they may be any number of other special groups or individuals. Reporting on what has happened, what exists today, or what is planned for tomorrow could be, and indeed often is, part of the library's public relations efforts. It is especially important at the State level. The statistics which will be most useful for reporting purposes are apt to be the descriptive type, and they will most often relate to services and costs. If adequate data are provided to serve the previously mentioned functions, they should generally serve the reporting function.

9. A more or less standard approach to library statistics is by library organization. As the *Handbook* points out, all of the activities of the library, regardless of type, can be included in three general areas—administration, readers' services, and technical services. The *Handbook* then proceeds to develop a rather complete chart of "Activities Constituting Library Service," according to these three basic divisions.

There can be no question about the usefulness of this kind of classification of possible areas for library statistics gathering, so long as it is used for what it is intended—a checklist of possible items that might be measured. It is not a guide either to what ought to be measured or to what can be measured, and should not be so used.

It should be a basic premise that the ease of collecting a statistic has no bearing on its significance. Statistics, whether ongoing or otherwise, will be meaningful to the extent that the assumptions, premises, or judgments which lead to their collection and subsequent manipulation themselves approach the quality of true insights.

The State and a Nationwide Library Data System

Finally, in addition to the foregoing general considerations which might apply to a national plan for library statistics, a few points which seem fundamental to the more specific role of the States as gatherers of statistics in a national plan.

1. Statistics should be collected as close to the source as is feasible, with those which have wider significance funneling up through successive levels to the national repository. At the same time, direction of the statistical effort, including whatever standardization seems desirable, should proceed in the opposite direction—from the national secretariat which is charged with that responsibility down through successive levels to the local library.

   It is assumed that the individual State library agencies would collect and to some extent process, as an intermediate agent, the statistics relating to local libraries of all types of which it is decided are needed at the national level, along with any which are needed solely within the State.

   The obvious implication here, of course, is that most States would have to extend their library statistics functions to include whichever types-of-libraries statistics they are not currently collecting. If, for example, there were such a thing as a typical State, the school library statistics function might now rest with the State education department; the public libraries with the library extension agency; with probably little or nothing being done at the State level about college and university or special library statistics. The acquisition of, or access to, staff with the appropriate understanding of statistical matters is also implied.

2. Much of the statistical data collected by States about the libraries in that State will be of primary use only to the State in question. These statistics should be collected and processed by that State, and they should not clutter up the national effort.

   Such State-level purposes as the enforcement of minimum standards, problems of fiscal accountability, and the administration of State and Federal grant programs, would likely require more detailed statistics than would be needed for national purposes.

   Also, because of the lag in the assumption by the Federal Government of widescale planning and leadership in library development, and because for many library development purposes the State constitutes the logical unit anyway, it is likely that for a long time in the future a considerable amount of the library development planning will take place at that level. The exact kind of data that will be needed for these purposes will vary from State to State, depending on many factors but chiefly on the stage of library development at which a particular State happens to be. Thus, the satisfaction of these State level statistical needs should be met by the individual States, and in terms of national planning for library statistics concern for standardization need only extend to those data which are collected nationally.

3. Referring to the preceding points and to the recommendations of the overview papers, a nationwide system for library statistics should certainly include the concept of a data bank or banks. It would be desirable for the larger States, at least, and possibly combinations of smaller States, to establish data banks for the storage of data useful chiefly at the State and local levels. In the development of a nationwide system for library statistics it may also make good sense to assign specific portions of a national data bank program to the States—the consortium concept suggested by Beasley. (It is appropriate to emphasize here that for the State to accept responsibility for a service does not mean that the State has to operate it. The State may, and often does, contract with any other agency, public or private, which seems to be in the best position to actually perform the service in question.)

Library Complexes

The next chapter on library networks and systems raises problems which bear directly upon State library agencies, and deserve special mention here. Increasingly, as schemes for sharing library resources and other devices for interlibrary cooperation are put into operation, there will be library systems, networks, and programs within each State which generate important library statistics quite apart from the statistics of individual libraries as such. It has been suggested in other overview papers that

the library statistics which will prove to be of greatest importance have not yet been identified. If it is fair to say that the future effectiveness of all kinds of libraries is going to depend more and more upon successful sharing and specialization, then it follows that more and more library agencies and programs will exist simply as agents, clearing houses, and back-up resources from which, and through which, services and materials flow, and which otherwise assist in the articulation of the separate parts and processes of networks and complexes of all kinds. The principle applies to all such agencies, regardless of whether they are or are not State supported and operated. The headquarters units of the regional public library systems which exist in almost every State, whether State or locally supported, are an example of this type of newer creature.

To fully and fairly assess the current library scene, these agencies must be included, and new statistical measurements and approaches will have to be devised which will help to describe and evaluate their contributions, and relate them to the final library product. Statistically neither fish nor fowl now, they are, and will be, an increasingly prominent feature of the library landscape.

It is precisely because these functions extend beyond the organizational and administrative purview of individual libraries that the role of the State, which cuts across types-of-libraries and local service and geographic boundaries, becomes so important. State government, at its best, will establish the legislative framework, provide funds, and provide leadership and assistance in the establishment and operation of these efforts which are critical to modern library development.

By the same token, it will be State governments—library agencies at the State level—which will bear the responsibility for collecting and reporting information about these activities. Because of their relatively new and evolving character, and their immense variety and complexity, it is not possible to set down here a few principles which should apply to their treatment in a nationwide system for library statistics. Suffice it to say at this point that a project is called for that will identify their distinguishing characteristics and establish what are the critical data which ought to be, and can be, collected regarding them. Perhaps initially the simplest possible description, oriented mainly to purpose, is all that should be attempted.

Whatever is done, it is not suggested here that such an effort should take precedence over what should be one of the highest priorities of the profession—to define the basic objectives and functions of libraries, and then to develop measuring instruments in order to determine whether the defined objectives are being met—this is the real heart of a nationwide statistics program.

LIBRARY NETWORKS AND SYSTEMS OVERVIEW

by Ruth L. Boaz

The rapid organization of libraries of all types into interrelated or comprehensive systems of libraries is making the traditional approach to library statistics untenable. Traditionally library statistics have been collected by type of library. Public libraries have been queried to determine the amounts of money received and spent for public library service, the number of volumes in their collections, etc. School libraries, college and university libraries, and special libraries have likewise been the subjects of separate surveys at different time periods.

Currently, large academic and public libraries are being designated as service centers through which regional, State, and Federal funds may be administered for the development of all types of libraries within specific geographical areas. Interlibrary cooperative programs are being encouraged by the Library Services and Construction Act, title III, now at a recommended funding level of $2,281,000, and by State library aid. The trend seems to be established that more and more States will be moving toward comprehensive library planning. Some examples of programs and planning which have been developed are as follows:

New York

The Library Reference and Research Resources Program (better known as the 3 R's Program) was initiated in New York in 1966. The purpose of the program is to provide improved access to advanced reference and research library materials to such serious library users as college faculty, college students, graduate students, industrial and scientific researchers, writers, physicians, scholars, and other professional persons. Coordinated networks of public library systems, academic libraries, and special libraries have been established to meet the goals of the program. Both publicly controlled and privately controlled libraries are included in the networks.

Rhode Island

In 1967 the Rhode Island library law was changed to authorize the Department of State Library Services to administer "library programs," deleting the limiting word "public." A major public library has been designated as a Center for each of the five interrelated Library Systems which now cover the State. Each System includes in its planning academic, public, school, and special libraries in the area. In addition to these five Systems and serving the whole State are three academic libraries which receive grants as Special Research Centers.

Pennsylvania

Pennsylvania has three academic libraries operated by the State which have been designated to receive State aid for the provision of public library system headquarters functions to independent public libraries within their system service areas.

Louisiana

In 1968 Louisiana conducted a survey of library service in the State. On the basis of that study, plans have been formulated for launching a Pilot Library System which involves all types of libraries. The pilot project is planned to test the concept of interlibrary cooperation on a multiparish basis.

Texas

The Texas Library Systems Act was signed into law on March 20, 1969. The act establishes a "statewide network of interrelated cooperating libraries" under the Texas Library and Historical Commission, which will administer the system through the State Librarian with the advice of a five-member State Advisory Board.

New Jersey

The Amended New Jersey State Library Law (Chapter 158 of the Laws of 1969) specifies that the Division of State Library, Archives and History shall: "... (f) Coordinate a statewide system of libraries in New Jersey, and administer State and Federal programs for the development of libraries, library facilities, library resources and library services in New Jersey, and require such reports as are necessary for the proper administration of its duties and for the gathering of annual and occasional statistics on libraries in the State."

American Samoa

American Samoa has a single library, the Library of American Samoa. This library serves one high school, one elementary school, one teacher training school, and the public as well as the acting base for library development. The development of libraries in the schools is being attempted. These libraries will serve both the students and the public in each district. The library's only branch is the T.V. Research Library attached to the T.V. studio. Its holdings are concentrated in the area of nonbook materials, props, and support material for the T.V. educational system.

Interlibrary cooperation among the various types of libraries presents us with the fact that data collected for services administered by a library may not represent library service exclusively for its type of library. Some of the local libraries which serve as system headquarters do not keep separate accounts and statistics for their function as a local library and for their library development functions. Those which keep separate accounts for the two functions seldom account separately for the development functions rendered to their own and to other types of libraries. Therefore, a library which is engaged in headquarters functions for a system serving two or more types of libraries will not submit an accurate report of its own type-of-library service.

The National Center for Educational Statistics is now taking a hard look at its present program for the collection of library statistics. What is the purpose for collecting library statistics at the Federal level? What does the Federal Government need to know about library service in the United States? On the other hand, what are the needs for library data at the State and local levels, and what is the Federal Government's responsibility to assist the States and local libraries to obtain these data?

Aggregate data are needed at the Federal level to answer such questions as: (1) What were the total expenditures for library service during the fiscal year? (2) How much money was received for library services from local, State, and Federal sources during the fiscal year? (3) How many budgeted positions for library services were filled and vacant at the end of the fiscal year? and (4) How many volumes were held in library collections at the end of the fiscal year?

For the purposes of planning and evaluating comprehensive library service, statistics are urgently needed by both the Federal Government and the States to determine what library resources are available within each State. Comparisons of library statistics from one State to another (e.g., volumes per capita) are the type of documentation necessary to secure legislation and increased appropriations for State aid to libraries, and to provide the Federal Government with guidelines for the distribution of Federal funds.

At the State and local levels, considerably more data are needed than at the Federal level. In order to account for moneys received, to justify budget requests, and to plan and evaluate programs, State and local library agencies need all of the data mentioned previously, plus information regarding organizational structure, programs administered, library use, characteristics of the population, etc.

A recent proposal has been made in the National Center for Educational Statistics to collect for all types of libraries those minimum basic data which are needed by the Federal Government. Hereafter, this proposal will be referred to as LIBGIS (Library General Information Survey). In this survey, identical questions would be asked simultaneously of college and university libraries, State libraries, Federal libraries, and other special libraries, and of all regional, State and Federal library development agencies. In addition to statistics on the resources administered by a specific type of library, this survey would provide to the profession, for the first time, statistics on the total library resources available within a geographical area. Since two or more types of libraries seldom have coterminous areas of service, the State would be the smallest geographical area for which comprehensive library statistics would be compiled at the National level.

A second part of the LIBGIS proposal provides for the design by the National Center for Educational Statistics of model report forms for each type of library and library development agency. A study of the current statistical operations in each State would be conducted to determine those questions which are considered vital at the State and local levels. The standardized forms would be accompanied by daily and monthly record sheets, and would provide for the reporting of program information as well as the traditional statistical information. This might necessitate the inclusion of narrative report forms.

A program would be initiated to encourage the States to adopt the standardized forms for their State surveys and

to train library personnel in the use of the standardized forms. Those States choosing to adopt the recommended forms would be able to compare their individual library and State reports with those of other States.

Concurrent with the design of model report forms, *Library Statistics: A Handbook* . . . should be revised and expanded. It should be reoriented toward the collection of comprehensive library statistics and incorporate updated definitions of terms, model questionnaires, and procedures for data collection and editing. Since the amount of detail required by the several levels of government varies, the *Handbook* should also address itself to the relative requirements for data at each of these levels and demonstrate how these needs can be satisfied.

A third part of the LIBGIS proposal provides for occasional or periodic surveys of those programs in which the Federal Government has invested library aid, and of other special concerns in the library community. Many of these studies could be derived efficiently on a sample basis from the model reports collected by the States.

The LIBGIS proposal provides for the regular collection of a minimum of core statistics for all types of libraries. In addition to this safeguard, the proposal has a flexible structure which could be expanded, as resources permit, even to the extent of collecting, editing, and publishing, by institution, all of the statistics included in the model report forms for all types of libraries. The whole program would have to be carefully planned and scheduled. After the establishment of the periodic core survey, more specialized surveys could gradually be incorporated into the cycle.

Timeliness of the data produced is also a very important consideration in the development of an extensive program. Expansion of the core program would have to be instituted in small increments in order to insure the rapid processing and publication of data. The system should not become overtaxed so rapidly as to slow down production.

It must be pointed out that the LIBGIS system does not preclude the establishment of the decentralized system recommended by the American Library Association in its *Planning for a Nationwide System of Library Statistics.* Indeed, the LIBGIS proposal has grown out of close interaction with the ALA planning project and presents a flexible structure which could be integrated over a period of time with ALA's recommended nationwide comprehensive library data system.

The current LIBGIS proposal represents a practical, developmental system, based upon the constraints of funding within which the National Center for Educational Statistics must now operate. In the proposal the States are being asked to assume an integral role in the implementation of the system. Until such time as legislation and funding for this activity can be obtained, the participation of the States must be enlisted on a voluntary, cooperative basis.

RESEARCH OVERVIEW

by Kenneth E. Beasley

For many years, as we now view the scene, the status of library development could be described best by that famous hymn, "There is a Balm in Gilead." Librarians and many members of the public hoped for a little heaven on earth, but it always seemed elusive and yet close enough to be viewed and on occasions even enjoyed vicariously. Then, all of a sudden, reality began to change at a pace that surprised all, frightened many, and was accepted by a few almost nonchalantly. The change was caused by many social forces originating in the general social discontent after World War II, forces which were spurred by the realization that concentrated research could produce answers to almost any apparently insoluble problem.

Social movements tend to generate part of their own momentum but eventually the intensity diminishes. The present one, though, is different because after two decades there is considerable evidence that the peak has not been reached. Since libraries are an integral part of the social system, it must be assumed that they too have not reached their final form and in the next few years will depart even further from the pre-1945 norm.[1] This change, even though it is partially predictable in intensity and duration, can be quite discontinuous in the absence of decisive direction by informed persons.[2] This direction will not be easy to formulate because the alternatives from a social point of view almost approach infinity. Even in the limited area of library services, the number of proven programs exceed the most optimistic estimates of available manpower. The demand will exist, the knowledge to support numerous courses of action will be available, but the wherewithal to act will be limited. How to maximize social benefit in this setting of frustration and conflict is the task assigned to us!

Much of the success of the direction will depend on the quality and quantity of research. In its broadest sense, and as used in this paper, research means gathering data about unknown phenomena, organizing them, drawing conclusions that explain or describe, and in the case of social science research to articulate alternatives and trends. Although there are few administrators in any of the major social programs who question the need for research, the intensity of the feeling varies markedly. In some professions like mental health and education, research finds are widely accepted, supported, and implemented whereas in others like the library field acceptance is still spotty. Similarly, the type (quality) of research covers a broad range that includes at one extreme simple data gathering to prove a predetermined point and at the opposite end complex analyses of problems that may or may not have relevance in current decisionmaking. The distinction between pure and applied or sponsored and independent research is discussed often but in practice is blurred as university personnel engage in consultation and sponsored projects and the consulting companies reserve part of their intellectural resources for basic studies. Inhouse organizational research can be described similarly. Indeed, one can argue easily that research has reached a state of development where researchers constitute a cult that is messianic and strongly defensive to outside criticisms, and yet it is quite productive.

It is in this general research setting that one must comment about and evaluate library research. Although obviously an integral part of the whole and indistinguishable in many respects from its counterpart in other social programs, research efforts in library administration and services have two unique features which describe them more accurately and provide a better basis for understanding their function in library development.

The present state of organized research is controlled in a large measure by its recency, dating back only 10 or 15 years. As will be noted later, efforts were made in the 1930's; but they were never pursued and not until the early 1950's do they reappear. Some of the lag in knowledge caused by this late entry can be offset by the experience gained from some of the unproductive methodological experiments of other research, but the lag will still be noticeable for several years to come. For example, the body of data that comes from gradual accretion in "trial and error" research is almost wholly lacking in the library field. We are still devoting priceless

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[1] The rate of change will not necessarily be the same for all types of libraries. Blasingame has commented aptly that in certain respects the intensity of the public library movement has diminished while the intensity of the special library movement is still very marked. Academic libraries are probably somewhere in between.

[2] It is recognized that this line of reasoning resembles closely the traditional arguments of the conservative who strives to maintain the status quo by the controlled direction of the future. Some reflection, however, on the emphasis on research as a tool of change will reveal that there is a significant difference.

time to such mundane subjects as *how* to measure a collection, *how* to evaluate reference questions, and whether circulation is a meaningful statistic. Not until publication of *Library Statistics: A Handbook* . . . in 1966 was there a systematic national definition of many basic terms used in public library service, but there still has been minimal adoption. Because schools and institutions of higher learning are essentially a closed system, the lag in their research is not as noticeable and is not as much an impediment for future development; for these, the impact of the new methodologies of systems analysis and behavioral sciences have more than offset previous deficiencies.

Librarians as a group are still not research oriented despite the fact that their national professional organization has sponsored research projects for many years and the fact that their daily work places them in constant association with the research products of other fields.[3] Several factors explain this attitude. Until recently, libraries were small and unchanging and as a result could be researched in their entirety in a short time. Also, budgets were minimal and were used almost entirely for direct operations of well-established programs. Philosophically, public libraries were in effect elitist, even though they were called "free" or "public," and as such they minimized the necessity for one of the current major areas of research; impact of services on various social subgroups.

No doubt a further significant contributing factor is that only a few graduate library schools are research oriented, and even at these institutions there are too few faculty trained to do or teach research. For many older librarians, a serious problem is the fact that research is disconcerting and anxiety-laden since in technique it is amoral and tends to challenge traditional concepts and operations. For them to accept research, there must be positive assurances that their identity and social reference points will not be changed, or if changed, that their contributions and talents will still be meaningful. Parenthetically, it can be noted that the professional organizations could do much to relieve this uneasiness, but so far they have not given this task a high priority.

Finally, note must be made that many administrative decisions in the larger local areas and at the State and Federal level are still not required to be based on the careful analysis of data. What little research is done, therefore, tends to be undermined at this stage. In one sense, this "undermining" has not been too costly because, as I have stated on other occasions, library service started its recent expansion from such a low base that almost any new program was probably right and a major error would require premeditation. This situation no longer prevails in most States. Now, the cost of delay (including the social costs of lack of service) while planning and organizing more systematically is less than the cost of errors associated with the present decision-making process.

The current status of library research has been stated well by numerous members of the profession, one of the latest being the series of short articles in the May 1967 issue of the *Wilson Library Bulletin.* The editor very aptly described the array of opinions as "A Kaleidoscopic View of Library Research." The comments range from Philip Enis' critical phrases of "fragmentary, noncumulative, generally weak and relentlessly oriented to practice" to the moderate position of Robert L. Gitler who argues that research has been going on but too little attention has been given to its application. Both of these positions, which are reflective of other observations in the library literature, are correct. Their differences stem from the fact that (a) they are talking about different types of research, (b) the type of research is not related to the function it is to serve, and (c) the research of a former period is evaluated according to the more advanced techniques of a later period. A review of the types of library research at this point will be useful to explain these differences and to provide a backdrop for later comments about a future research program.

Dating from the 1930's, a major part of the data on library operations has come from demonstration projects and surveys.[4] Demonstration projects, not as common in recent years, were designed to determine if a certain kind of service was feasible and desirable. By their nature, they were field studies of action programs and were concerned with active ongoing decisionmaking, political and administrative interaction, and philosophical justifications. In some respects, they were the

[3] Many of the research projects sponsored by the ALA in the past have really been a combination of promotion and research, with the two not being distinguished properly in all cases. This observation can be made now as we look back. At the time the research was carried out, the distinction was probably not so discernible.

[4] Demonstration projects began in the 1930's and continued through the 1940's and were supported quite commonly by funds under the 1956 Library Services Act. By the early 1960's, however, they received less support from the profession, largely because projects were being duplicated and hence not really demonstrations.

forerunner of the case study that became so popular in the social sciences in the early 1950's. They never quite gained this stature, partly because there was insufficient general research support in the social sciences and partly because many projects were never reported in the literature. Those that were reported were often addressed to a broad or popular audience and hence tended to be general statements with failures and deficiencies not being recognized or revealed. Despite their limited usefulness as articulated research findings, the reports of demonstration projects are the source of a wealth of data which have not been fully exploited by doctoral students and other researchers for the insights they might shed on library service during a transition period of nearly two decades and the possible hypotheses that might be compared with current assumptions about the "whys" of library service in a supposedly new era.

If there is anything truly unique about library research it is the extensive use (bordering on dedication) of surveys. Their widespread acceptance and general pattern has been stated well by Charles A. Bunge in "Statewide Library Surveys and Plans: Development of the Concept and Some Recent Patterns"[5] and need not be recounted here. Like demonstration projects, surveys have been action oriented but with one difference in that they supposedly preceded all decisions on programs except the belief that some kind of change was probably in order. In reality, the decisions had been made and the purpose of most surveys has been to prove their correctness and to show that services were adequate.

From one point of view, this simplistic approach has been salutary because it made most surveys focus sharply enough that the better ones have provided some comparative data. Had the profession been able to agree on definitions several years ago, and had the surveyors been more alert to their responsibilities to the profession as well as to the communities for whom the surveys were being made, the collective results of many surveys would comprise by now a valuable array of descriptive data which could be used for both more advanced theoretical and applied research.

This criticism is not meant to downgrade the survey or to argue that all should follow an identical format. *The Public Library Inquiry* (1949-1952) and the later survey of library services in the Pacific Northwest are examples of almost unexcelled survey work which have as their objective the identification of the major patterns of library service, and later statewide surveys (e.g. West Virginia and Ohio) were built on the experiences of prior efforts.[6] Surveys, furthermore, need to be continued because they serve a useful function in direct program decisionmaking, are a device to disseminate knowledge to the public, and can be a symbol around which an action program can be organized easily. Efforts spent on surveys, however, should produce general research data along with the information needed by the community or State, and to this end must be systematized with perhaps the following features:

1. Surveys which are designed to answer the questions whether there is adequate library service, are standards being met, what kinds of new services or organization would be desirable, etc., should follow a fairly standard format. Books like *Library Surveys* by Maurice Tauber and Irlene Roemer (eds.) satisfy part of this requirement; but to this kind of presentation there should be added some of the features of a manual—and there should be general professional agreement.

2. This format should be designed by personnel associated with research at library schools and disseminated by the profession's national organization. This is the kind of function the profession should do for itself in the interest of assisting the public.

3. In the case of community surveys, or where direct citizen participation is important, the format should be detailed so that nonprofessional researchers can do all or most of the data gathering.

4. In surveys made by outsiders, the detailed format should be followed with the additional requirements of a description of the methodology, reasons for departure from the format if such seems desirable, and evidence that the surveyor is acquainted with the results of other surveys.

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[5] Charles A. Bunge, "Statewide Library Surveys and Plans: Development of the Concept and Some Recent Patterns," *Library Quarterly* 36 (January 1966): 25-37.

[6] Robert D. Leigh, *The Public Library in the United States* (New York: Columbia University Press, 1950); Pacific Northwest Library Association, *Libraries and Librarians of the Pacific Northwest* (Seattle: University of Washington Press, 1960); Ralph Blasingame, *Survey of Ohio Libraries and State Library Services* (Columbus: State Library of Ohio, 1968). See also Grace Stevenson, *Arizona Library Survey* (Phoenix: Bureau of Educational Research and Services, 1968).

These requirements are not as rigid as they may seem at first. No one is prevented from doing surveys, but communities would know what an acceptable minimum is. If a survey were done in less than a professional manner, subsequent communities in which a person intended to work would be entitled to know this. *The profession, with the direct assistance of the library schools, must assume this or a similar responsibility.* The alternatives are much less pleasing.[7]

In the 1960's, there was a surge forward in the use of the newer social science research methodologies—statistics quantitative measurements, systems analysis, behavioral techniques, computers, etc. From these efforts, at first by social and physical scientists and engineers, and now including a few librarians with research training, there have been several excellent reports. At the top of any listing, for example, would be Fusler and Simon's study of the use of the University of Chicago Library.[8] The projected reports of the manpower study by Mary Lee Bundy and Paul Wasserman should also be of top caliber considering the carefully constructed methodology and use of leading researchers in several disciplines.[9]

Although very few examples of this type of research can be cited in the public and school library areas (with the latter being unusually weak), a good base is developing rapidly to support major studies on academic libraries involving empirical testing and leading to statements of a comprehensive theory of the function of the research library. Articles have already been published on the application of systems analysis, quantitative measurements of use, computers, and the latest concepts of budgeting. Although still in embryonic form, measurements of quality and quantity have already been translated in several State university systems into formulae as guides for systematic development.[10]

The best literature and research by far deals with special libraries. Here one finds numerous illustrations of efforts to apply certain methodologies and concepts in all the sciences, including engineering, behavioral sciences, and business; modified cost-benefit ratios, cost-time-motion/efficiency, multilevel file structure to determine user interest, mathematical formula for evaluating machine retrieval systems, formula to determine when interlibrary loans become too costly, marginal utility theory, simulation of search process, etc. Information retrieval problems is the object of many of the inquiries. Despite their advancement over similar studies about other types of library service, these are still relatively simple and general and tend to be discontinuous.

The reasons for this uneven development in research among the areas of library services can be identified and need to be noted here as a background for later recommendations. The leading reason is that there are still too few library trained researchers. Members of the nonlibrary disciplines can make a contribution for a short time and can perform a very useful service as critics; *but the real insights are most likely to come from persons steeped in the specialty and, second, possessing the detachment characteristic of the true researcher.* Until this kind of person can assume the major part of library research, it will continue to be below the optimum level.

Another factor is the small amount of reliable descriptive data on which to construct advanced studies. Spottiness, furthermore, stems from the lack of reporting of the better research in the leading journals, and particularly the failure to report methodology. An outsider should always be restrained in commenting on editorial policies in journals outside his discipline, but it seems to me that the present library journals are oriented too much to a broad library audience. Perhaps what is needed is a new journal similar to *Administrative Science Quarterly* which reports the best of the research and theoretical statements, jargon and all if such is necessary to express something precisely.[11] Right now, its active reading audience would be small compared to the total membership of the American Library Association, but its use would be an indispensable feature of graduate training. Hopefully, as the younger graduates accepted administrative positions, they would continue

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[7] This recommendation is made with a full awareness that some present unsatisfactory procedures will be frozen into the standard format. New procedures are certainly difficult to get adopted, some might argue, without the hurdle of the sanctity of a standard system. Still, the alternatives are less pleasing.

[8] Herman Fusler and Julian Simon, *Patterns in the Use of Books in Large Research Libraries* (Chicago: University of Chicago Library, 1961).

[9] For a short summary statement, see Paul Wasserman and Mary Lee Bundy, "Maryland's Manpower Project: A Progress Report," *Library Journal* 93 (April 1, 1968): 1409-14.

[10] For example, Verner W. Clapp and Robert J. Jordan, "Quantitative Criteria for Adequacy of Academic Library Collections," *College and Research Libraries*, September 1965, pp. 371-80.

[11] The ideal would be reorientation of an existing journal. However, editorial policies of professional journals are not the easiest thing to change, witness the great growth in new journals recently.

to follow the publication and provide the atmosphere in their organization for inhouse testing of basic findings. Currently, the procedure for disseminating research data is awkward and haphazard and places a premium on lengthy articles in order to assure publication in a symposium or book of readings.

Finally, library research will always have the same handicap faced by all social science researchers in that library service is determined by many variables which can change rapidly within short periods of time. Consequently, experimenting and testing never produce as precise results as one would like, and their application to other situations may be very limited.

An overall program for the collection of statistics on library services must be interrelated with general library research as it exists now and as it has developed in the immediate past. As I have stated elsewhere in writing, an essential requirement for collecting any statistics is that they measure or describe specific and indentifiable characteristics.[12] It is the identification and description of these characteristics to which general library research is addressed, and in so doing a variety of research techniques and methodologies must be employed. Ideally, they would be identified first, and perhaps even general theories formulated, before statistics were gathered. Practically, this procedure is not feasible because the statistics provide part of the raw data for identifying characteristics, and the demand for decisions will not permit us to wait this long. Moving ahead in both areas is mandatory even though there will be serious problems of circular reasoning to overcome by mixing the two types of research. It is with these ideas in mind that the following comments are presented as recommendations for an integrated or comprehensive research program.

The profession should prepare a plan of priority research, particularly as a guideline for younger researchers. Although a plan of this type has overtones of predetermining what is important, it need not go so far as to be the equivalent of *control*. Unfortunately, research dollars are limited as to both location and time, but library problems respect neither. Judicious use of scarce resources, therefore, is paramount; and judiciousness inevitably implies value judgments. Indeed, library research is heavily *controlled now,* but it is vague and is exercised by various persons and organizations for different reasons—witness the common phrase used by researchers, "I must sell this project to_____." One way to start setting priorities would be a series of working meetings[13] at which leading practitioners and acknowledged library researchers could assess the current scene and suggest some orderly ways of development. This discussion would also force a look at the interrelationships of different types of library service and perhaps some expression of a general theory of library development. Equally important, a program of recommended research is a way to communicate to administrators the types of survey and demonstration projects that would be useful to support general research.

A top priority should be projects which address themselves to the interrelationships of public, academic, special, and school libraries just noted. Various efforts have been made along these lines, usually involving only two of the types, but no significant work has treated all of them as a unit.[14] Indeed, one of the most urgent needs of the profession is a modern comprehensive theory of the function of libraries. Parenthetically one might note what many librarians have discovered: New techniques of cooperation and organization create as many new demands as they meet. It can be argued that as these demands grow, essentially "closed" facilities (e.g. academic libraries) will be opened up, general facilities (public libraries) will specialize more, and the public will view all of them generically as "libraries" with less interest in their origin. In this setting, studies of the users of a library would only have limited value for short term operating decisions rather than as a revelation of a basic social phenomenon.[15]

If accepted, a plan of priority research would decrease the number of similar projects, particularly surveys, and would force librarians to evaluate the geographic transferability of research findings, something that the

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[12] Kenneth E. Beasley, *A Statistical Reporting System for Local Public Libraries.*

[13] Many of the meetings in the past with this general orientation have not been at the level of sophistication envisioned in this recommendation.

[14] Although there is no theoretical statement on which to base their actions, several States have already proceeded on the assumption that a unity exists. The efforts of Rhode Island, New York, and Pennsylvania should be noted in particular.

[15] Paradoxically, this observation does not mean that fewer user studies are necessary. Although many of them have been made in recent years, the methodologies, sophistication, and purpose have differed so much that we still do not have a good picture of the user. Perhaps if the focus of such studies were sharper by relating them to the short run decisionmaking process, we could get better results.

profession has avoided doing up to now. The presumption would certainly be that quality research in one jurisdiction would be valid in another one unless the latter demonstrated clearly significant uniqueness; it would have to assume the burden of proof if it argued there was a difference. So-called research designed for its immediate catalytic effect in getting an action program started would be identified clearly for what it is!

Inhouse (staff) research must be developed and directed by persons trained in both librarianship and research. Staff research is oriented toward data gathering for administrative decisionmaking, but the data are indispensable for comparative studies. National determination of the proper data or statistics to be collected is feasible in the short run, but in the final analysis it will be (and must be) the librarian-researcher who sets the pattern. Accuracy in reporting depends on them, they know what nuances should be noted to explain apparent deviations from the norm, they interpret research findings to the administrator, and they will be the ones who will test the validity of whatever data are gathered.

Staff research is probably the weakest element in the organizational structure of libraries, and compared to such social programs as education, mental health, penology, it is far below par. There will always be some difficulty in providing the desired amount because so many libraries are small and cannot afford full time positions for research. This is but reality, which must be met by devising alternative ways and insisting that larger library units sponsor a high level of inhouse research in their organization.[16]

There must be a resolution of the current confusion about the collection and reporting of statistics. In at least the past 7 years there has been much discussion, some effort, but little improvement. I have commented formally on the subject as it pertains to public libraries on several occasions, the latest one being a statement of "A Theoretical Framework for Public Library Measurements."[17] Based on this experience and the writings of others the following summary judgments can be suggested:

1. The major difficulty in untangling the statistics mess is the confusion by many librarians of descriptive statistics, standards, and qualitative evaluations. Statistics merely describe what has been determined previously as that which ought to be described. They are neutral, expressing neither good nor bad. Qualitative evaluations are expressions of value assigned to certain statistical results. The values may be derived in part from the statistics but may also stem from other observations. Standards are only statements of what should be, based in part on what is! The latter may come from descriptive statistics in whole or in part.

   Because descriptive statistics are so poor in all areas of library administration, evaluations and standards are often no more than guesses which can be challenged by all extremists and proved wrong by their own statistics. As a first step in untangling, there should be an agreement on those aspects of library service which are subject to quantitative measurement and which describe some meaningful aspect of service. For example, the number of people who enter a library says something about service whereas the number of cardholders does not. The total number of books (and other material) indicates the probability of a certain item being present.[18] Similarly, the number of professional employees is more significant than the total employees.[19] Some things cannot be measured quantitatively, such as the impact of Book A on Mr. X, but with behavioral research techniques we can make some generalizations about all of the Mr. X's and these generalizations will be useful for decisionmaking. Because libraries deal in large numbers (books, people, etc.) a large number of descriptive characteristics can be quantified.

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[16] "Staff research" is a subject that needs much more attention in the literature. No major implementation of this recommendation can be made without retraining present staff personnel. Although I do not claim to have seen all programs for manpower training conducted by State libraries and library schools, I have never seen one that treated this subject.

[17] Kenneth E. Beasley, "A Theoretical Framework for Public Library Measurement," in *Research Methods in Librarianship: Measurement and Evaluation*, ed. Herbert Goldhor, Ch. 1.

[18] This relationship will be challenged by some members of the profession who know about certain libraries with reported large collections which are reputed to be quite poor. I, too, can recall visiting such facilities. However, I think these cases are the exception and should not control our efforts to determine statistical relationships in the "upper 90 percent" of libraries. On the other hand, if these libraries are not exceptions, then there are some fundamental problems in library development which have not as yet been explored fully.

[19] The number of professional employees must obviously be related to other factors before it can be evaluated. The professional employees, for example, could be doing clerical work. Where this occurs, it should show up as overstaffed with professional personnel. Other data on employees will still be necessary, but their use will be for short-term administrative decisionmaking.

2. Qualitative measures of a library are no more difficult to set than for many other private and public services. The major requirements are (a) systematic determination of characteristics as just noted, (b) willingness to be critical of the status quo, and (c) clear definition of functions. The last item has posed the most difficulty with public librarians because they have not fully admitted that the functions of different sizes of libraries vary, and that it is only proper to compare libraries falling in the same category. School libraries also tend wrongly to be considered monolithic. Academic libraries, in contrast, are viewed differently with a frank recognition that libraries at a junior college, 4-year college, and graduate institution have very unique characteristics. What needs to be done is to compare the functions of some of the subtypes or categories of each of the three basic kinds of libraries. For example, are high school, junior college, and undergraduate libraries of 4-year colleges similar in "x" number of characteristics? Is the purpose of elementary and junior high libraries and public children's collections the same or so supplementary that they are a part of a whole? Once functions have been defined, the applicability of descriptive statistics, quality evaluations, and standard to all or part of them can be determined.

Qualitative measures originate in two ways: One set of them is *internal* to the library and is determined essentially by librarians from both empirical data and their collective judgments. In this category are such factors as age of material, types of periodicals, training of personnel, classification of material, accessibility, etc. The second set, which overlaps the first, is *external* to the library (and the profession) and represents that body of knowledge describing the needs of the individual and society. These needs are articulated as a result of research employing all of the techniques of social science research. The librarians can do part of this research to determine these needs, but not all because of the requirement of specialized training. In most instances, they must take already articulated conclusions, translate them into the library setting, and then apply them to an operating program.

Examples of these factors would be needs established by research in bibliotherapy, social trends in employment as described by the economist and sociologist, business information as stated by business administrators, educational needs as stated by educators, general reading matters as expressed by the public in their actual reading habits, etc. In summary, qualitative measures must be set by the library profession in active consultation with other groups. A large part of the misunderstanding of present quality measurements stems from the fact that they tend to be confined to the *internal* set, which is the one most familiar to librarians, and do not reflect enough of the *external* set.

Implied in this reasoning is that standards should also be set by librarians working actively with outside forces.[20] Academic libraries come the closest to fulfilling this requirement since in most institutions of higher learning book selection is a responsibility of each discipline.

3. The present confusion on statistics also results from not understanding that there are two levels or types of statistics which overlap in some instances but still have clear identities. One kind includes those statistics which are the basis for a qualitative measurement and setting of standards. They are the result of rather basic research and may be complex and technical. An illustration would be the data needed for a formula to measure *access* to a library.

A lower order of statistics is concerned with operations. These data are significant to the administrator for certain types of information and control, and of the two the latter usually takes precedence. Illustrations would be expenditures by type, income by source, number of books, (inventory), number of cardholders, population of the taxing jurisdiction, salary scale, number of employees, etc. This kind of information is commonly reported to the public, Federal, and State executive and legislative policymakers. No matter what steps are taken to develop qualitative measures and standards, data of this order will

[20] Many librarians will claim that this active participation already exists. What they are really referring to in most cases is a form of general conversation or consultation. A librarian in a large system can specialize enough that he or she can develop an identity (and liaison) with special groups, but these are the exception. It can be argued that some of the present standards are stated so generally because the librarians have tried to be too "all consuming."

continue to serve a useful purpose. For one thing, they make possible comparisons with other social programs, in terms of investment or allocation and use of resources. They are also useful base data in certain situations to determine what quality of library service is possible from a given amount of resources—quality does not necessarily mean efficiency. The important thing to recognize is that, contrary to the general practice, this lower order of data has very limited value for comparing library programs and quality.

A general research program or nationwide program for statistics must incorporate both levels and sponsor both with the same enthusiasms. This proposal may sound like a plan to use two languages to explain the same thing, and to a certain extent it is true. There is no harm in this approach—in fact it leads to more precise descriptions—if the profession uses each language correctly and in the proper place.

4. Central to any program of statistics or general research is a data bank. "Bank" is used in the broad sense to mean a depository for not only statistical data but other research findings as well. Enough banks have been established in other academic and business areas to demonstrate that they are feasible technically and within financial capabilities. They not only provide data more rapidly for operating decisions, but they are a major force for improving research by building on past studies. *A data bank, however, should not be created to report formally the kind of current library statistics.* Knowing details about every library in the United States is not meaningful, although it would be interesting. This does not mean a bank should not be established now for "imperfect" data as long as it is understood that certain corrective steps in the system are essential.

The two major issues are who should be responsible for the development and operation and whether the profession is motivated enough to resolve some of the problems noted in this paper in order to maximize the value received from the investment. The second matter cannot be answered here—although much more can be done than many leaders are willing to try—but some comments on the former can be offered.

Who should operate it? There are arguments in favor of one organization assuming responsibility for the bank and functioning also as the agent to collect and publish general library statistics. Such an arrangement has the earmark of administrative simplicity and would undoubtedly facilitate some development of uniformity in reporting. These advantages, however, are not likely to be controlling in any final decision, largely because they are hypothetical and consensus on the one agency to do the work is unlikely in the near future.

There are other compelling reasons against centralization. Research and library services are not as yet a part of a unitary system. Although more uniformity is desirable, and indeed necessary, there are still significant differences. Statistical data, for example, should be collected at a source where it can be processed rapidly for fairly immediate use and with a minimum of diversions from other demands. Other research data may be collected at points where specialized research personnel are available to edit and code them. Also, because statistics are used for different purposes, it is not necessarily more efficient for one agency to try to collect for every possible use, and in some cases the form will have to be mandated because of demands by policymakers (e.g. Congress). Private groups could not (and should not) do the latter. Some individual collecting, therefore, will still be necessary.

A more practical solution might be formation of a consortium of agencies desiring to develop data banks, with each one assuming responsibility for a specialty but with a sufficiently strong interlocking directorate to assure coordination. The American Library Association would certainly be a logical place to house the secretariat for it and to assume the general responsibilities of administration and development. At this time, it seems that likely members would be universities with strong library research programs, corporate entities having a strong interest in technical library services, and such public agencies as might be appropriate. There would certainly be no reason, in the case of the last group, why a State library might not be the most feasible repository of certain kinds of data.

Appendix B

SPECIFIC STATISTICAL CONCERNS

1. Public Libraries (Rose Vainstein)
2. School Libraries (Richard L. Darling)
3. College and University Libraries
   (Jay K. Lucker and George M. Bailey)
4. Library Education and Manpower
   (Frank L. Schick)
5. State Libraries (S. Gilbert Prentiss)
6. Special Libraries (Logan Cowgill)
7. Federal Libraries (Paul Howard)

PUBLIC LIBRARIES

by Rose Vainstein

Whether public library statistics present inventory-type data, or interpretive information on terms of user's needs, or inhouse administrative data, several factors complicate any discussion of such statistics:

1. The changing governmental and organizational structure of the Nation's public libraries;

2. An increase in the fiscal and service relationships of public and other types of libraries, whether through formal or informal means;

3. The profession's opposition to, or lack of, support in the collection and use of statistics; and

4. The lack of research training and skills by librarians.

The relative ease with which one previously identified, counted and described the Nation's public libraries no longer exists. It would appear that there are fewer unaffiliated public libraries today than immediately after World War II. By "unaffiliated" is meant such public libraries as are single-jurisdictional, having no cooperative or interrelated associations with other libraries or library systems in its geographical area.

Although the systems concept for public libraries is not a new one, the impetus for its support gained momentum in the late 1940's and early 1950's, with the publication of the *Public Library Inquiry.*[1] Coupled, in 1956, with the passage of the Library Services Act and the publication of ALA's public library standards, cooperative library programs and systems organization became a major thrust for library development.

Some Problems of Definition and Delineation

What may seem a somewhat rhetorical question is actually a complex one: How does one define, identify, and then attempt to describe and evaluate a public library? In many instances complex relationships already exist and new relationships are in constant state of evolution, all under the general umbrella of public library systems. Although *Library Statistics: A Handbook of Concepts, Definitions, and Terminology,* published in 1966, devotes several pages to this complex matter of definition, organization, and identification of library systems, the glossary does not really help in defining the term for statistical and enumerative purposes.

As presently used, the term "public library" apparently includes any of the following, each counted as "one" (or not) depending on variations among the several States: (I) single municipal public library with (or without) branches; (2) mobile units or stations; (3) single county libraries which are consolidated; (4) multicounty or regional libraries; (5) federated cooperative systems in which libraries "band together," through contract or other means, for comprehensive or only specified library purposes. In the latter category, it is possible that both the component parts of that system (each a separately and legally established library) *plus* their corporate entity may be counted for numerical purposes. One is not sure, therefore, whether statistical data have, or have not, been duplicated in reports sent to Bowker, ALA or the State library agency.

In addition, at varying jurisdictional or governmental levels, there exist supplementary and complementary library systems for specific adjunct and housekeeping services and/or direct public services at the same or at more specialized levels. These may be combines of public libraries, quasi-public libraries, school, college or other libraries. Certainly the current Federal and State trend is to encourage cooperation, not only by type of library (public with public) but increasingly without regard as to type-of-library, all under the rubric of interlibrary cooperation. These current trends must be taken into account, so that any reporting and statistical program maintains adequate identification and description as to network affiliation.

In the recently completed study *Public Library Systems in the United States,* Nelson Associates attempts a definition of the term "public library system."[2] The

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[1] A series of reports conducted by the Social Science Research Council and published by Columbia University Press, 1949-52.

[2] Nelson Associates, *Public Library Systems in the United States,* p. 2.

study recommends a regular nationwide census of systems, differentiating between what are termed "primary systems" (which may be multi– or single-jurisdictional) and "special-purpose systems."[3] In the case of the latter, the study points out that these may tie together public, school, college, university, or special libraries for a particular activity involving shared responsibility of some sort.

Of the many terms in need of immediate clarification and definition, it would appear that the term "library system" heads the list.

Types of Statistical Data and Their Possible Uses

In an overly simplistic fashion, one might think of reporting methods used as describing public libraries of our Nation in two ways:

1. Numerically and descriptively: this includes the "how much" and the "how many" characteristics, using with varying success, standard terminology.
2. Interpretively: in terms of the impact of the library in the community and the extent to which user needs are met.

As the cooperative concept spreads, separating the numerical from other components (so as not to duplicate or omit data) becomes an increasingly complex and frustrating task. The identification and characterization of library users, as they move within and among library systems, is equally difficult. Determining the extent to which their needs have been met, and where, is further complicated by the emergence of multijurisdictional reference centers, such as METRO and CARES in the greater New York area.

The question might well be viewed in terms of *who* needs *what* statistical, descriptive, evaluative, and other research data, for *which* specified purposes. Certainly inhouse, management use of that kind of information which the library administrator needs to plan, support, and evaluate his ongoing program of services, is one of the most valid. It is conceivable that a considerable portion of such data would also be of interest to State library agencies which need to identify, describe, and justify their own statewide responsibilities. Other libraries of comparable size, both in the State and out, would also find such information useful.

For ease of reference, these are referred to here as inventory-type data. Collectively on a national scale, when identified and counted, these data would represent input for a national data bank, but this would presume a greater degree of uniformity of terminology than presently exists among the States. This is not to say that professional standardization and agreement on terminology is utopian. Certainly librarians, and the many specialists who work on library studies and surveys, have for several decades now, been in unanimous agreement as to this critical need for standardization of terms. The National Advisory Commission on Libraries gave this problem added prominence and urgency.

In addition to inventory-type data, there is a second category, more complex in identification. These are the qualitative, program data, with societal and value judgment overtones. These are the kind of units of measurement needed to support PPBS (program planning and budgeting systems), with their emphasis on cost-benefit ratios. Many business and governmental agencies are working toward and within the PPBS framework. When one reads the signs of the times, whether in Washington or in State capitals, the need for this type of data for libraries, and especially public libraries, assumes even more urgency, since it may well be linked to financial aid and the tax dollar. In this highly competitive era, legislative bodies are less willing to allocate funds on previously acceptable bases such as general need, and the "seed-money" concept.

If intelligent decisions in the allocation of funds are to be made, and if total funds available are less than the requests, then legislative allocations are likely to be based on anticipated, more immediate results. By this I mean, in choosing which service programs they will fund, legislators are likely to ask which services will yield the greatest measurable results in the shortest period of time.

In the instance of service to the disadvantaged, for example, whether for the economically or culturally deprived, questions may well be along the following lines: "will funding of a public library program for preschoolers result in better and faster social and educational gains than one for functionally illiterate adults, or one for the aged?" Librarians contend that *all* are of equal community or national importance. Unless, however, such claims can be supported by hard research data, legislators (and taxpayers) are not likely to be either impressed or convinced. Nor for that matter, can library directors and boards make meaningful local

[3] Ibid., pp. 257-58.

decisions when it comes to the establishment of inhouse priorities for program support, without a data base which provides this cost-benefit analysis.

Some Possible Approaches to Data Collection

For this discussion, then, it is assumed that two broad categories of data will be obtained:

1. Inventory type data: the "how many" and "how much" statistics, to be collected annually from all public libraries, regardless of size;

2. Selected data for special needs: to be collected on a varying periodic time schedule from a selected sample of public libraries, depending upon the kinds of data required and the size of public library. Examples might include collection of data on who used a selected group of public libraries on an annual given day—in what ways, and with what user satisfaction; a sample survey on distance traveled for library purposes, correlated with selected user characteristics; a study of budgeted professional vacancies among libraries of different sizes and in different geographic areas.

Significant to the collection of such special data will be the establishment of one or several national panels of public library and other experts to determine which data to collect, its periodicity, the sample (or universe) to be used, and other research aspects. Such a panel might include representatives from ALA's Public Library Association, American Association of State Libraries, and the Library Administration Division, as well as those from other fields, such as social scientists, statisticians, and other specialists representing the private research sector, universities, and appropriate agencies of the Federal Government (the National Center for Educationsl Statistics, the Bureau of Libraries and Educational Technology, and the Census Bureau. The latter is especially important if library data are to be correlated with financial, occupational, and related census information.)

It is strongly recommended that the initial charge to such a national panel be to identify basic and immediate statistical needs; define and adopt terms of reference; agree upon a series of common forms which will then be used by all State library agencies, whether for general or specific questionnaire purposes. It should also direct attention to the National Advisory Committee's report and recommendations, especially those regarding strenghtening of State library agencies, and should seek to secure ALA endorsement and support of its statistical and research recommendations. Such a panel should receive financial aid for the preparation of working papers, publication of its reports, and the regular convening of its members.

Implicit here, is the assumption that State library agencies which do not presently have the necessary statutory authority for the enforcement of statistics collection will remedy this situation as rapidly as possible. Also implicit is the authority and responsibility of each State library agency to officially identify all public libraries in the State, and to supply corrections and additions to such listings for national compilation and use. Above all, it is assumed that the State library agencies will share the responsibility for national public library statistics with the Federal Government, and will accept the procedures recommended by the national panel and promulgated by USOE.

Each recognized public library should be assigned a unique identifying number for data bank and research use, with such descriptive factors as the panel decides are necessary, meaningful, and reasonable. Typically, these might include income or expenditure, materials budgets, size of total holdings, population served, governmental organization and structure, and other relevant factors. The panel should also investigate the feasibility of a paid sample group of public libraries for special study purposes. This might include the structuring of various index factors relating to library use, cost of library construction, etc.

One cannot avoid the data bank concept as the ultimate solution to national statistical problems. Whether organized centrally, or operated on a regional basis, such a system could provide both inventory-type and special study data to State library agencies, professional associations, taxing bodies, individual libraries, and other agencies in whatever combinations and permutations are needed. In some instances, data should be provided at no cost as a government service. In other instances, as determined by the panel(s), a fee basis might be appropriate for such customers as individual librarians and educators, publishers, business concerns designing and selling library equipment, the construction industry, audiovisual companies, and various suppliers interested in existing and potential markets.

Not only should this approach result in the prompt availability and publication of information, it should also provide meaningful comparisons not presently possible. One should, however, start initially with a

limited number of library items—those few for which there appears to be sufficient support and acceptance of standardized terminology. Simultaneously, therefore, the panel should work toward standardization of definitions and uniform terminology acceptable to all types of libraries in order to facilitate cross-type library network and system statistics. It should also direct early attention to the determination of other relevant data, both inventory-type and special study, which should be fed into the system for more sophisticated research and indepth measurement, and to whether this would need to be extracted on a sample basis or from the total public library universe.

It would appear that the Federal Government is the most logical agency to create the necessary national coordinating mechanism for such a data bank project. This does not preclude, however, consideration of ALA as an appropriate adjunct body in this effort, nor does it preclude the use of library research centers attached to major universities as additional resources to strenghten, support, and enhance the system. But the major thrust and coordination should come from the Federal Government, as advised by the kind of panel(s) just described.

Specialized Data

The precise nature and extent of specialized studies needed are beyond the scope of this chapter; rather, the principle will be discussed, and some approaches to specialized data collection proposed.

The use of a national panel is again suggested and may, or may not, necessarily be different from the panel concerned with universal inventory-type data. All library statistical panels probably should include common core members who will insure continuing coordination and consistency—whether by type of library, type of service, resource, or physical facility.

In the future, it is likely that special study data will become more useful, precise, and sophisticated as librarians gain expertise in identification, definition, collection, interpretation, publication, and application of its various components. Even now, there are several factors which lend encouragement to efforts for improved, expanded, and continuing statistical programs:

1. We have now gained some experience in the use of the 1966 *Handbook* upon which to base needed improvements and corrections. A revised edition should be issued at the earliest possible date.

2. The National Center for Educational Statistics is now firmly organized within the U.S. Office of Education, and its Library Surveys Branch is headed by the former coordinator of the *Handbook* project.

3. There are recognizable efforts within the U.S. Office of Education to strengthen its library services unit to place it advantageously within the complex structure of the USOE.

4. Increasing emphasis within the Office of Education upon library research studies and funding, and upon library education at the doctoral level, should generate interest in library studies, the development of related research skills, and the possible completion of operational studies as part of the doctoral requirements.

5. Increased concern can also be noted at the State level for the importance of library program evaluation, research, and statistics. State library agency expertise in these matters grows as a result of numerous statewide surveys and other studies relating to the State's responsibility for library development.

6. If the National Advisory Committee Report recommendations are followed, the State library agencies will be encouraged to exert their rightful leadership role.

7. Two major library research centers have now been established, one at the University of Illinois, the second at the University of California.

8. The creation in 1968 with ALA of a Library Research Round Table will provide much needed professional focus and inquiry into library data needs.

9. The market potential for library statistics has also increased considerably under the "seed-money" concept of Federal legislation. This increased market, augmenting that of librarians and educators, includes potential users of these statistics in the A-V field, the construction and equipment industry, among specialists in metropolitan and urban problems, and researchers into personnel and manpower matters. It is likely, therefore, that Federal support (staff and funds) will be increased. The library market, in terms of operating expenditures only, is now estimated to exceed

$300,000,000, exclusive of capital outlay for new or improved buildings, expenditures in the private school sector, sale of textbooks to students, and expenditures in new technology.

To serve these diverse needs, it is essential that there be increased emphasis on statistical coordination among the several States, the Federal Government, and appropriate professional bodies. Such coordination would not only serve local libraries better statistically, but should reduce the harassments incurred by frequent, small, independent studies, often crudely and inadequately devised.

As proposed earlier, each public library should be assigned an identifying number or code, and the State library agency given official responsibility for revising its own State list, noting "drops," "adds," and "combines." It is recommended that such library lists be gathered and published periodically in the form of a national directory by the U.S. Office of Education, and offered for sale to the public. Individual libraries should be supplied with lists of comparable institutions so they can make intelligent use of data banks in assessing their progress and status.

In this writer's view, every State must play a key role in the collection, coordination, and dissemination of statistics within its own borders. Further, the States must be convinced that it is in the best interest of public service that they assign high priority to the improvement of library research methods. This means the assignment of qualified personnel to statistical and research projects, the identification of an adequate budget for these purposes, and the necessary administrative support for library research and development, not only at the State level, but the local level as well.

Research needs

It is essential that an immediate, coordinated effort be made to increase library "know-how" and sophistication in the collection, tabulation, and evaluation of statistics and research data. Special Federal and State funding is needed to encourage and support inhouse statistical studies and internship programs—a proposal made at the National Conference on Library Statistics in 1966. Working with existing programs, such prototypes could be established as pilot projects, preferably in large public library systems near one of the library research centers, with doctoral students given opportunity to observe as well as to participate. Operational research programs should be devised with the effective assistance of the proposed national panel, or panels, to attack measurement problems of interest to significant groups of libraries. These could well be dissertation topics for consideration by USOE in its research-sponsored studies.

Out of such concerted and coordinated efforts, perhaps the library profession, more specifically the public librarians, could then realize that long-sought desire for valid measures for the certification of individual public libraries, predicting on a standard rating scale, the user's likelihood of finding the material he wants and the services he seeks. Further, it is possible that library administrators will have developed the necessary tools of measurement for effective program planning and budgetary control.

Such an eventuality, however, cannot occur through pious hopes and periodic exhortations. If any substantive changes are to take place in the foreseeable future, both the Federal and State governments must legislate for the necessary statutory and fiscal support necessary to meet library statistical and research needs. In addition, a strong innovative program of continuing education in statistical and research methods should be organized through the combined efforts of national library associations, State and regional library associations, library schools, research centers, and other related agencies. Conferences on library research methods, such as the 1963 program reported in the July 1964 issue of *Library Trends* and the more recent 1967 Illinois conference, now in print as No. 8 of the Library Monograph Series of the University of Illinois Graduate School of Library Science *(Research Methods in Librarianship: Measurement and Evaluation),* suggest a modest but significant body of literature on which to build an active internship and inservice training program. Throughout the country, there is now a small but able cadre of experienced librarians and social scientists whose efforts, if properly organized and supported, could bring about the dynamic research thrust which is so essential in the evaluation of all types of library service today.

SCHOOL LIBRARIES[1]

by Richard L. Darling

A coordinated system for collecting and reporting statistics for school media centers should relate to (1) the uses for which statistics are required, (2) the items of information which need to be collected, (3) the frequency and method of data collection, and (4) the assignment of responsibility for collecting and publishing data. While the publication of *Library Statistics: A Handbook of Concepts, Definitions and Terminology* provided a first major step, identifying benchmark measures and providing standardized definitions and concepts for school library statistics, the evolution of a coherent, nationwide school library statistics program depends upon agreement to use the *Handbook* and to begin implementing common methods at the various statistics gathering levels.

Since the publication of the *Handbook,* the agencies which collect school library statistics have made little progress. Even a cursory examination of forms currently used by various States to gather data on school media centers reveals an almost complete lack of consistency in statistics programs. The State departments of education collect different information, use different terminology, and collect data for different purposes. Perhaps the reporting which most approaches consistency from State to State relates to the title II, ESEA program, for which, however, reports are made only by participating schools or school systems. Since the 1962-63 school year, the U.S. Office of Education has collected no general school library statistics and has never used the approach proposed in the *Handbook.*[2]

Important as acceptance of a nationwide system for coordinating school media center statistics by the library profession is, the acceptance of such a system by Chief State School Officers is equally important. One element in a nationwide system, therefore, must relate to cooperation with Chief State School Officers and with their staff to whom they have delegated responsibility for elementary and secondary school statistics.[3]

Implementation at the State level of a nationwide system for school library statistics depends upon positive action by legally responsible State school authority.

Uses of School Media Centers Statistics

Several different levels of school administration and concern—local, State, and national—need school media center statistics. Each level has some statistical needs that are different, while all have other needs in common. Agreement on definitions and concepts and on data to be compiled will enable each level to complement and supplement the others, and to supply data useful to each of the other levels.

The Individual School and Local School System: The individual school and, to a lesser extent, the local school system, are the primary generators of school media center statistics. They are also major users of those statistics, no matter at what level they are collected, since they can use both State and national statistics to support their programs as well as their own local statistics.

The individual school media center maintains records for its own evaluation of ongoing activities and to facilitate management of its program. Some of the records are solely of local interest and concern. Data collected are used to justify and explain the importance of activities for the school program to the principal and faculty. Often the individual school uses its own data to justify requests to the school system for more materials, more funds, augmented staff, or for enlarged or modified facilities. Other information, such as the number of students using the center on an average day, might assist the principal and librarians to assess the adequacy of their methods for encouraging teachers to use the media center's collections, but might not be useful outside the individual school.

The School System Central Office Agency: The school system's central office agency for media centers usually has responsibility for budgeting, staffing, planning school media center facilities, and for providing other services for the individual schools. It uses data collected from the individual schools to justify requests for local board of education appropriations, and to measure growth and progress in school media center programs.

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[1] Definition: For the purposes of this report, the terms "library" and "media center" shall be understood to be synonymous.

[2] Editor's note: Since this paper was prepared, the National Center for Educational Statistics is conducting surveys of public and nonpublic school libraries in the fall of 1970.

[3] It will be essential to cooperate with the Committee on Educational Data Systems (CEDS), a committee established by the Council of Chief State School Officers for the development and implementation of a nationwide, statewide educational information system, with representatives from every State.

The school system also uses the information in planning and revising its policies and procedures for promoting school media center development.

The central office agency must also use statistics related to its own activities for the same kinds of purposes—developing program, budgeting, and evaluation. Information related to output and costs of central processing of media center materials, for example, are essential in planning budgets, securing staff, improving efficiency, and in arriving at decisions such as whether to continue to process locally or to purchase preprocessed materials. The central office also needs data on circulation and use of centrally inventoried materials, such as 16 mm motion picture films and professional materials for teachers, in order to prepare and justify budget requests and to plan effective selection policies.

The State Department of Education: The State department of education has a variety of uses for school media center information. Those States which have approval or accreditation programs for schools based upon minimum standards must have data on school media centers on which to base their evaluations. State activities to promote media center development and improvement in local school systems need information on the status of these centers to develop standards, to plan State-supported inservice education, and to encourage the improvement of education for school media specialists in State institutions of higher learning. In order to administer Federal aid programs for school libraries, State education departments will need increasing amounts of information on the status and growth of school media centers.

Those States which actually apportion funds from title II of the Elementary and Secondary Education Act of 1965 on the basis of relative need of teachers and pupils for materials already are asking for data on which to base allotments. Additional Federal legislation for school media centers will increase the number of States which need up-to-date and consistent school media center statistics.

Regional Accrediting Associations: The regional accrediting associations use school media center data in their accrediting activities. Except for the Southern Association's accreditation program for elementary schools, the regional associations collect reports school by school in order to determine whether or not schools meet regional association standards. The Southern Association elementary school accreditation relates to entire school systems, but is based, even so, on individual school reports. Since the regional associations' use of school media center information is limited to their accreditation programs, and the data are collected only from member schools, they cannot be considered major users or collectors of media center statistics.

American Association of School Libraries: The AASL is a major user of national school media center statistics. It uses these data in the development of national standards for school media programs, in measuring achievement of such standards, and in developing programs to promote school media centers. The AASL Knapp School Libraries Project, for example, used national statistics to justify the need for demonstration of the value of improved school media center service.

The Federal Government: The Federal Government, however, is the major user of national school media center statistics. The U.S. Office of Education uses such data to support requests for legislation and appropriations for school library improvement, and to supply information concerning the impact of legislation and funding levels. A secondary, but important, Federal use of statistics is to supply information to other agencies, both State and local, and to contribute United States data to international statistics-collecting agencies.

The Federal Government uses information relating to State education department services for school media centers as well as local school and school system data. Federal money appropriated for both titles II and V of ESEA has been used to employ school media center personnel to administer federally funded programs and to strengthen State education department services. The Office of Education will need information to report on the extent of State services in order to justify continuing Federal support.

The fact that school media center data are used by a variety of agencies at different levels, while the bulk of the needed information originates from the same source—the individual school—underscores the importance of agreement, at all interested levels, on definitions, concepts, and the data to be collected. Agreement on these things will assure the comparability of data at each level, and that the local schools and school systems will compile the needed information in usuable form. Gathering different kinds of information for different agencies is self-defeating. Whether all the information compiled is needed at each level is unimportant. Actually, the detail of data needed tends to decrease at

each higher level. What is important is that those items needed at higher administrative levels are gathered in the same format and involve the same vocabulary each time they are requested.

Items of Information to be Collected

The items of school library information to be collected for schools and school systems, listed in the *Handbook,* remain valid. The individual school should be used as the unit of enumeration for school library statistics, with additional information gathered separately for school system central office services for school libraries. As intermediate units of school administration and multidistrict cooperative service units increase, it will be necessary to collect statistics relating to their programs. However, since their services are similar to those of local school system central office agencies, the same kinds of data will be required. Items to be collected for State education department services will include personnel, expenditures, and services. Information should be collected for schools of all grade levels—elementary, junior high schools, high schools or senior high schools, junior–senior high schools, combined elementary and secondary school plants, and for the emerging middle schools.

Individual Schools: In addition to the types of information enumerated in the *Handbook* to be collected for individual schools (clientele, hours of service, physical facilities, collections, personnel, and expenditures), data are needed concerning audiovisual equipment, microform equipment and materials, and dial access retrieval equipment. Measures need to be devised through special research which will provide the means of determining the extent and effectiveness of services. Because of Federal aid programs, schools may also need to report sources of income for media support.

School System Central Office Agencies: The *Handbook* recommends that school systems report information on system media centers, school media center supervision, and school system processing centers. System data should be collected separately from individual school data since studies of schools and school systems will be based on different universes and samples. Both are needed, however, to measure school library development.

Data reported should include clientele, facilities, collections (including equipment), services, personnel, and expenditures. The services to be measured, in addition to those mentioned in the *Handbook,* should be based on national standards and their subsequent revisions.[4]

Intermediate Administrative Units and Regional Multidistrict Media Centers: With the growing development of intermediate administrative unit services for school media centers and of regional media centers serving several districts, statistics should be collected concerning them. Since most regional media centers provide services similar to school system media centers, the statistical program will be the same for both the central office services and for regional centers. For centers serving several school systems, however, the clientele served must be reported differently, as follows:

Number of school systems served
Number of schools served
Number of professional staff served
Number of pupils served

Information on sources of income for regional media centers will also be useful to measure the importance of various levels of government in their development and support. Data on income should be reported in the following categories:

Income from local school systems
Income from State sources
Income from Federal sources

State Department of Education School Media Services: Media services provided by State education departments often consist of several elements, which may or may not be parts of a unified program. Many State education departments operate professional libraries to serve the department staff. These libraries should be classified as special libraries; data concerning them would be collected in studies of special libraries serving State government.

Several State education agencies, particularly in States with a small population, maintain State film libraries which lend motion picture films to the schools of the State. Although these libraries are usually independent of other services for school media centers, their services make a contribution to media programs in individual schools. Since a school's relationship to a State film

[4] For example, American Association of School Librarians, ***Standards for School Library Programs*** (Chicago: American Library Association, 1960), pp. 43-45; and American Association of School Librarians and Division of Audiovisual Instruction, ***Standards for School Media Programs*** (Chicago: American Library Association and Washington, D.C.: National Education Association, 1969), Ch. 6.

library resembles its relationship to university and commercial film rental agencies, it is recommended that statistics related to them not be collected as part of a regular school media center statistical program. Use of these resources could be measured at the local school level. Special studies of film libraries serving schools, however, would need to include State film library resources and services.

All of the States have school media center supervisory positions, either as part of the regular State education department program, as administrators of Federal programs, or both. Data on State school media center supervision would be valuable both to measure the status and growth of State level services, and to determine the influence of Federal programs in developing and improving State school media center supervision. Information concerning State school media center supervison should include personnel, services, and expenditures.

Frequency of Data Collections

While the proposals for annual collection of data may appear excessive in view of the infrequency of data reporting in the past, the long gap in collection and reporting of school media center statistics makes it essential that an adequate data base be created for comparison and projection. Subsequent experience may reveal that much of the data originally required annually can be gathered biennially, particularly for school systems, intermediate units, and States. For several years, however, much of it should be included in annual studies.

Obviously, some information on school media centers is needed on an annual basis, while that which would reveal no significant change from year to year can be collected less frequently. Information which should be collected annually includes the following:

Individual Schools:

- Clientele
- Personnel, including salaries
- Collections, including audiovisual equipment
- Expenditures
- Sources of income

School System Central Office Agencies

School System Media Center
- Clientele
- Personnel, including salaries
- Collections, including audiovisual equipment
- Expenditures
- Sources of income

School Media Center Supervision
- Personnel, including salaries
- Staff and schools supervised (Clientele)
- Expenditures

School System Processing Centers
- Media centers served (Clientele)
- Services (Output)
- Personnel, including salaries
- Expenditures

Intermediate Administrative Units, Regional Multidistrict Media Centers:

The same three categories of information should be collected annually for intermediate administrative units and for regional multidistrict media centers as previously indicated for School System Central Office Agencies.

State School Media Services:

- Personnel, including salaries
- Expenditures
- Sources of income

The following information might be collected less frequently, and, for most purposes, every 5 years would probably be adequate:

Individual Schools:

- Hours of service
- Physical facilities

School System Central Office Agencies:

School System Media Centers
- Hours of service
- Physical facilities
- Services

School Media Center Supervision
- Services

School System Processing Centers
- Services (Types of service)

Intermediate Administrative Units, Regional Multidistrict Media Centers:

Same information as for School System Central Office Agencies

State School Media Services:

Services

Method of Data Collection

The reasons State education departments and the Federal Government collect statistics for school media centers differ markedly.

State departments of education need information for approval or accreditation, for allocation of State and Federal grants to schools, and for assessing the degree to which media programs approach standards endorsed by the State. As a result, the State needs data relating to each school and school system within its jurisdiction and should use the universe of individual schools and local school systems in projecting a composite picture of school media center programs for the State as a whole.

The Federal Government, on the other hand, uses school media center statistics to support national legislation, to evaluate the results of Federal grants, and for other national purposes. It can well use scientific sampling techniques in gathering data. A national universe of school systems is available for constructing school system samples, and the National Center for Educational Statistics has recently developed a similar universe for individual schools. Maintaining a universe of schools, both public and private, however, is a major job. Sound school library statistical programs depend upon it, and the State education departments will have to be called upon to define their respective universes. Standardization of statistical programs among the States is absolutely essential in national planning.

Because the number of State education departments, even including the District of Columbia and outlying areas, is relatively small, data should be collected from all of them concerning those school media services which they provide as supplemental to the individual school district programs and those of intermediate and regional levels.

Responsibility for Data Collection and Publication

Though the basic responsibilities for compiling school library statistics lie with the individual school, the responsibility for gathering and reporting school media center data belongs to school system central offices, State departments of education and the Federal Government. It is important for the success of the school media center statistical programs that the individual school, the school system, the State department of education, and the Federal Government agree on what information is to be recorded and collected.

Local school systems, preparing and justifying budgets, need to collect all of the items listed. They may, indeed, wish to collect even more detail in order to illustrate special local problems. Since their use of school media center data is for practical, local purposes, they cannot be expected to publish it for more than local use. They must, however, serve as collecting and editing agents in supplying data to State education departments, the Federal Government, and, of course, where the administrative structure calls for it, to the central office agencies and intermediate levels.

State departments of education, on the other hand, should not only collect school media center data for administrative purposes and for reports to the Federal Government, but should also publish this data so the local schools and school systems can use statewide data in support of local programs. Although it has been suggested that State libraries should serve as collecting agencies for all library statistics in each State, one must consider the organizational and administrative disparities among the States. In most States legal responsibility for all aspects of school media center services, including statistics programs, is vested in State departments of education, of which State libraries may or may not be a part. The general acceptance of all statistical programs for schools supervised by the State as a concomitant responsibility would seem to make the collection of school media center statistics easier. In any event, the State department of education must delegate this responsibility according to its own organizational structure.

Although the American Association of School Libraries and the National Education Association may, from time to time, find it necessary to conduct special national studies of school media center data, the National Center for Educational Statistics of the U.S. Office of Education should have the major responsibility for collecting recurring national media centers statistics. The National Center should secure the cooperation of State education departments in distributing and collecting questionnaires to local schools and school systems, and in maintaining

accurate national universes of school libraries. Otherwise, it should conduct its own surveys and construct viable scientific sampling techniques for the production of national statistics.

It should publish both the briefer annual statistics, gathered from the State education departments, and the less frequent, but more detailed studies. As early as possible, the National Center for Educational Statistics should employ a school library specialist, experienced in statistical methods, and such supportive staff as necessary for this work. The National Center should also take responsibility for collecting statistics concerning multidistrict media services, using as its data base, statistics gathered by the States. Although State departments of education will want data concerning such centers under their jurisdiction, the large number founded or improved through the use of Federal funds gives the U.S. Government a special interest in their programs and progress.

The National Center of Educational Statistics should also collect and publish data concerning State school media center supervision, and supplemental services rendered.

Summary

It would, no doubt, be convenient if a nationwide system for school media center statistics could include table shells and questionnaires so that every study could be complete and identical with every other. Each statistics collecting unit, however, will collect statistics at different times, and often for different purposes. Each study properly will begin with the construction of table shells based on the data to be gathered using a common body of terminology which is nationally promulgated. With table shells developed, the agency conducting the study can compile a questionnaire capable of supplying the data necessary to turn the empty shell into meaningful statistics.

The items listed in the section on *Information to be Collected* are basic elements in school library statistics. From them a host of derived statistics can be computed—number of pupils per media specialist, books per pupil, expenditures per pupil, etc. Each derived element must be identified in table shells before a collecting instrument is developed. Without this careful attention to study design, no one can be sure he is asking the questions that need to be asked.

The basic concerns in planning for nationwide collection of school library statistics are relatively simple:

1. We must know what the statistics are for.

2. We must agree, in advance, on the information we need so that the unit studied will preserve the right information, and the collecting agency will ask for the same data. Today, schools keep one set of figures, but the States ask for others. Schools keep records in one way and the U.S. Office of Education demands them in another. Local schools and school systems will supply data willingly if they are sure the records they keep are the records that will be required, that terminology is uniformly applied, and that the same data will not be requested over and over again at different levels of government. When statistical demands from both State and Federal levels are consistent and coordinated, the fact that several questionnaires may be received will be no obstacle. A common bank of data, developed at the State level, would do much to overcome problems of overlapping statistical studies.

3. We must recognize the responsibility of both the State education departments and the Federal Government to collect statistics for their own purposes. They, in turn, must recognize their responsibility to publish the results and to share them with local schools and school systems which can use them for their own purposes. When both the suppliers and the collectors of statistics can identify tangible results of their efforts, a statistical program has a sound basis from which to proceed.

COLLEGE AND UNIVERSITY LIBRARIES

by Jay K. Lucker and George M. Bailey

If a single word can be used to characterize the academic librarian's attitude toward the present system of compilation and dissemination of statistics, that word must be frustration. Administrators of academic libraries are frustrated because they spend an inordinate amount of time filling out forms, answering questionnaires, and compiling statistics: then never seem to have the information they require when they require it. While a solution to these two factors would not be the entire answer, any nationwide system for the compilation of academic library statistics must incorporate the elements of timeliness and relevance. It most certainly will be difficult to generate any enthusiasm at all among academic librarians for a "new" proposal unless this proposal ensures that the institutions will have what they want—when they want it. It has been suggested that we ask too much, but most academic librarians sincerely believe that the present program presents only a bare minimum of information which is often received too late to be really useful.

In addition, we must address ourselves more to effective techniques of presenting statistics. In a recent article, an economist from Catholic University noted, "The problems of analyzing current library statistics are compounded by the very unsophisticated nature of data and the cavalier approach to the presentation of tabular information."[1] Like all generalizations, this one may be suspect, but it is definitely true that we must expend some energy on the form in which we present the data we so laboriously collect.

Current Developments and Trends

Before attempting to delineate the several ways in which academic libraries use statistical data, it might be useful to list a number of factors which have increased our dependence upon statistical information.

In recent years, the greatest pressure upon academic libraries in the area of data collection has been that caused by the increasing involvement of Federal, State, and local governments in the financial support of institutions of higher education. The report of the National Commission on Libraries summed it up in the following lines with telling force:

> The pitiful incompleteness and tardiness of library statistics, and their lack of comparability, make it impossible to give specific quantitative responses to this series of questions. No one knows precisely, or even with close approximation, what the total present library expenditures of the Nation are, or even what the Federal contributions to these expenditures are—nor can even approximately reliable specific estimates be made of the costs of remedying the serious deficiencies in library service that we all know exist.[2]

Since we all agree that government assistance of libraries is essential and must increase, we must become more knowledgeable about what we need, why we need it, and how we use it when we have it.

A second factor worthy of mention is the growth and proliferation of 2-year colleges. Whether private junior colleges, community colleges, or county colleges, these institutions are a major element in the academic library world. The embryonic nature of this movement is such that libraries in these institutions often require statistical data which their larger sister institutions do not collect. Too often statistics which have been collected for support of programs in 4-year institutions have had to be adapted for use by junior colleges, albeit many programs exist exclusively in the latter institutions.

An important element in any nationwide data system must be a realization of the special needs of these libraries. It is strongly recommended that a base study be undertaken to determine statistical terminology and data requirements which will enable junior college libraries to compare themselves with each other and with accepted standards; yet which will be sufficiently compatible with those of 4-year institutions to permit appropriate national totals for the whole spectrum of academic libraries.

Another influence on academic library development has been the rapid growth of various cooperative arrangements. In addition to such national schemes as the Center for Research Libraries, the Public Law 480 Program, the Farmington Plan, and EDUCOM, there are State programs (e.g., New York's "3 R's" program, and

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[1] August C. Bolino, "Trends in Library Manpower," *Wilson Library Bulletin* 43 (November 1968): 269.

[2] National Advisory Commission on Libraries, *Library Services for the Nation's Needs,* p. 9.

the Illinois Regional Systems), interstate cooperatives (e.g., the New England Depository Library and the Midwestern Universities Consortium); and such local groupings as METRO, the City University of New York, and the Finger Lakes regional cooperative, to cite examples in the State of New York alone.

Individual academic libraries have been cooperating with each other in various activities: acquisitions, reciprocal borrowing, storage of materials, union catalogs, reference services, etc. These arrangements can be expected to continue and to expand both in terms of the number of cooperative activities and the number of participants. This expansion will be expedited and encouraged by the increasing use of such technological innovations as TWX, Dataphone, telefacsimile, ultra-microform, and computer storage. In order for a library first to decide whether or not to enter into a particular cooperative arrangement, then later to evaluate the benefits of participation, there is a clear need for statistical measurements.

Statistical Needs

A nationwide data system for academic libraries must consider carefully the two questions of who uses the statistics, and how. If it were merely librarians and library staffs who were involved, we might well be content with the present state of affairs. It is obvious, however, to those who administer libraries that there is a much wider and more sophisticated public to whom academic library statistics must be meaningful. Library programs are only prepared by librarians—they must be understood, reviewed, and approved by college presidents, provosts, deans, controllers, treasurers, trustees, faculties, and students. For statistics to have an impact upon such groups, they must be presented in a consistent, logical manner, and must reveal the significant factors which will affect decisionmaking.

It would be highly desirable, therefore, that all portions of a nationwide system for library statistics which affect academic libraries be reviewed by concerned organizations in the academic field as a whole, as well as by college and university librarians. These might include such groups as the American Council on Education, the Association of American Colleges, the American Association of Junior Colleges, and the American Association of University Professors. The next few decades will see tremendous pressures for a piece of the university dollar from every corner of the campus: libraries must be prepared to state their case using mathematically sound figures and data which are truly relevant to the ultimate aims of the institution.

Few will argue against the contention that the primary use of academic library statistics is in budget preparation. The academic librarian uses the statistics of his own library to show what has been done: he uses statistics from other carefully selected libraries to show what needs to be done. That the librarian and his various reviewers are the only ones in a position to make this selection can be contested: the practice, however, remains and is deeply entrenched.

The collecting of local statistics for various control purposes is strictly a function of the individual library, and the kinds of data collected on this level will, and properly should, vary from institution to institution. In the field of comparative statistics, however, the academic librarian relies almost completely upon some supra-agency for the collection and dissemination of data. Since most academic libraries operate upon a fiscal year, most library budgets must be completed for submission early in the calendar year. With this in mind, it is strongly recommended that a library data system provide a means by which as much information as possible be made available as soon as possible after the close of the fiscal year on June 30.

A second use of academic library statistics is connected with the financial support offered by governmental and private funding agencies. One has only to read the testimony in support of such legislation as the Higher Education Facilities Act to realize the necessity for accurate, complete, and up-to-date statistics. In the preparation of proposals of almost any type, there is a clear need for statistical data, not only of the library within the institution seeking grant funds, but also of comparable libraries. In order to develop a grant proposal for a new area of research, for example, it is imperative to know what library support is required. This information presupposes a high degree of knowledge of the library's present capabilities and the extent to which it meets acceptable norms.

The several accrediting agencies which are involved with institutions of higher education also generate a need for academic library statistics. In addition to the important qualitative measures these agencies must concern themselves with, there are quantitative standards which should be reflected in national statistics for academic libraries. Regular publication of such data is vital to the accrediting process.

Finally, there are two other aspects of the statistical needs of academic libraries which, though particularly focused upon local performance and procedure, will have increasing national implications. These are the data requirements of program budgeting and cost effectiveness analysis. Program budgeting has been around for quite some time, and its impact upon academic institutions is increasingly felt. Libraries inevitably will be asked to prepare program budgets when their parent institutions enter this type of analysis. The community of academic librarians would do well to begin investigation as to the way in which program budgeting will affect the keeping of statistics. As for cost effectiveness analysis, all too little information, based on all too little study, is available. Ask an academic librarian what it costs his library to process a book, and more often than not he cannot provide a mathematically sound figure. Even when he can, the figure is not comparable to one provided by another librarian because the input data is highly variable from library to library. It seems obvious that libraries would welcome this kind of information, but unless some periodic accumulation of data is made by a central agency, it is unlikely that they will ever have *it*.

Library Universes

Prior to 1966, the U.S. Office of Education used seven categories under which it classified academic library statistics:

University
Liberal Arts
Teachers College
Technical School
Theological or Religious School
Junior College
Unclassified

With the advent of HEGIS (Higher Education General Information Survey) these were cut back to four broad classifications:

Universities
Four-year institutions with graduate programs
Four-year institutions without graduate programs
Two-year institutions

This simplification was a considerable improvement over the somewhat arbitrary categories used previously. For example, it got around the problem posed by the inclusion of teachers colleges which are best included under universities and 4-year institutions, of which they are now almost invariably a part.

There remains, however, recurrent need for statistics of a variety of libraries connected with professional schools of one type or another. Law, medical, music, and theological schools are but a few which might be bracketed under a broad category of professional school libraries. When the overlap with universities and 4-year colleges, of which many of these are part, is taken into account, no practical way can be seen to add professional schools as a separate category for annual coverage under HEGIS. Responsibility for such data must fall either upon appropriate professional associations, or, if gathered by USOE, would have to constitute the results of special studies. One way to accommodate these would be to add to the basic HEGIS questionnaire, as required specific questions for each of these specialized universes.

The same approach might be used for technical schools, most of which fall now under the category of 2-year institutions. A base study of the ways in which libraries serving 2-year, liberal arts oriented, "community," or "junior" colleges differ from specialized technical schools might be fruitful in determining whether their separation in national statistics is productive. This is not to say that specialized academic libraries do not have real need to compare themselves with similar agencies. Should an effective national data bank system be developed, then these details could be accommodated and should be programmed for. Until then, however, national statistics for each type of academic library by subject orientation must remain within the province of special study if attempted by the Federal Government. This limitation is dictated through sheer economic considerations.

Responsibility

The responsibility for the collection and distribution of academic library statistics, which has been assumed by the U.S. Office of Education for the past 10 years, with the advice and recommendations of the American Library Association, should continue to be assumed by that agency. This was recommended at the National Conference on Library Statistics in June 1966 and we support this recommendation with some possible modifications. Other professional library associations, such as the Association of Research Libraries, Special Libraries Association, Medical Library Association, Music Library Association, and the American Association of Law Libraries, are also involved, and should have an

opportunity to provide continuing advice on statistical compilations which affect them.

Academic librarians generally agree that the U.S. Office of Education should continue to be responsible for the development and printing of the questionnaire; but they also agree that the questionnaires were distributed and collected most successfully when handled by several of the State agencies. The States have an important and essential role to play in national compilation of academic libarary statistics, one for which they are now prepared. It is therefore strongly recommended that a study be made of the financial needs of the appropriate agencies in the 50 States in order for these agencies to assume responsibility for the distribution and collection of the questionnaires in the respective States. Included in this responsibility should be the identification of the academic library universes, followup procedures to insure collection of statistics from all academic institutions, and such inservice training or workshop programs as are necessary to insure understanding of the questionnaire, acceptance of uniform terminology, etc. The appropriate State agencies should then receive the necessary financial support from the Federal Government to carry out these responsibilities.

Once collected and edited, the questionnaires should be forwarded to the U.S. Office of Education for assembling, analysis, publication, and dissemination. Sufficient staff and funds must be provided in order that all aspects of the program can be implemented on a rigid schedule to permit publication of statistical data not later than January 31 of each year for the previous fiscal year. Budget preparation for the majority of academic institutions requires the availability of the data each year by this time. The respective responsibilities of the States and of the Federal Government should be allotted, and if necessary, reallotted, to enable this time schedule to be maintained.

Most significant in determining the success of the plan for academic library statistics will be the existence of appropriate advisory groups. The Statistics Committee for College and University Libraries (and the LAD Statistics Coordinating Committee) of the American Library Association should continue efforts in the following areas, using subcommittee assignments as suitable: statistical data required, questionnaires, programs for collection, standardization of terminology, statistical reliability, accuracy and consistency, and research needs and application. At the same time, there is definite need of an advisory group to the USOE National Center for Educational Statistics which will provide adequate representation for the interests of academic libraries, and in many cases, the States will find it productive to have advisory bodies to assist in the determination of State universes and localized problems regarding any of the preceding considerations.

Statistical Data Required

The publication, *Library Statistics: a Handbook of Concepts, Definitions and Terminology,* makes specific recommendations for the collection of various kinds of statistics based on extensive national attention involving four regional conferences. It is admittedly a significant step toward statistical coordination, but will require the continuing attention of the LAD Statistics Committee for College and University Libraries in its gradual revision. Particular attention should be given the following:

1. *Volumes added:* At what point in the process of adding volumes should they be counted? The question of the counting of unclassified resources such as Government publications needs additional investigation.

2. *Titles vs. Volumes:* Although the *Handbook's* recommendation is firm, there is still little to no agreement on this subject among academic librarians. In developing collections, libraries continue to be concerned with the need for information on both volume and title counts.

3. *Microform Count:* As microform collections grow, especially in the newer libraries and the larger research libraries, more librarians and administrators will question the separate count by reel, card, etc. An increasingly larger share of periodicals on microform can be expected.

4. *Periodicals and other Serials:* How many libraries are able to provide the statistical information required in the *Handbook* (e.g., bibliographic volumes), and how reliable will the data supplied be? Is there a real need to distinguish periodicals from other serials in academic libraries?

5. *Interlibrary Transactions:* How valid is the information supplied? With the increased use of photocopy, are we getting the kind of statistics needed? Should we still recommend exclusion of transactions within a system?

6. *Binding:* Are these questions clear? Why separate local binding costs from commercial binding costs?

7. *Automation:* What does a library include in this category?

8. *General Institutional Data:* Why is this information needed on the library questionnaire if secured under the overall HEGIS by the U.S. Office of Education?

In order to secure as much support as possible for its recommendations, as well as general understanding and concurrence, the Statistics Committee for College and University Libraries should continue to report at the meetings of the Board of Directors of the Association of College and Research Libraries.

Obviously, all survey questionnaires should be correlated with the *Handbook* recommendations and terminology and with those of any of its revisions. Annual data should continue to be gathered on library collections, library operating expenditures, library staff, and salaries. In addition, annual information is desirable for unfilled professional and nonprofessional positions, incumbents with fifth year degrees, and nonbook materials. The format of the questionnaire should be kept as consistent from year to year as possible in order to make comparisons meaningful. Changes tend to confuse the local librarian and should be made only upon recommendation of the appropriate advisory body.

On a less frequent basis, possibly every 3 or 5 years, statistics should be collected on staff turnover, classification systems, physical facilities, departmental libraries, faculty status and other fringe benefits, technical services costs, public services costs, cooperative programs, hours of opening, and other factors such as special collections and audiovisual services. Concerning the latter, the ACRL Audiovisual Committee might knowledgeably advise on statistical needs. In some instances detailed studies would probably be recommended by the advisory group concerned with the statistical data required. Library schools and library research centers should be asked to undertake special studies in cooperation with ALA and other library organizations with Federal and State financial support and foundation grants.

Additional Considerations

Certain additional considerations should be included in planning a nationwide system for library statistics. The Federal Institute of Library and Information Science, whose establishment was recommended in the Report of the National Advisory Commission on Libraries, is supposed to direct its efforts toward "better tools for the analysis of library and information requirements, quantitative measures for judging the value of existing systems and services, and an understanding of the relative value of various information-transfer media and of the role of interactive systems."[3] In this role, it should assume responsibility, in cooperation with the National Center for Educational Statistics, for the coordination of all statistical projects.

Insufficient attention has been given to the correlation of statistics and standards. When discussing standards, librarians, administrators, and accrediting teams, among others, refer most frequently to the quantitative aspects. In the *National Inventory of Library Needs,* 1965, the most difficult problem was caused by the lack of adequate quantitative data in the standards to determine library needs statistically. Therefore, advisory groups concerned with library statistics must constantly seek the advice of persons concerned with the revision of academic library standards.

Likewise, efforts should be made by the advisory groups, which are determining statistical needs and the means of meeting these needs, to find possible computer applications to the collection and dissemination of the statistics. ALA's Information Science and Automation Division should be consulted on this aspect of the matter.

Finally, more attention is needed in the correlation of library statistical data with other institutional data, especially when considering the relationship between statistics and standards. The bases upon which we determine needs for library service are inextricably tied to those of the parent institution which the academic library serves, and our decisions, ultimately, must be justified in these terms.

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[3] Ibid., p. 41.

LIBRARY EDUCATION AND MANPOWER

by Frank L. Schick

Perimeters of Library Education Statistics: The primary objective of statistics is to provide meaningful data for the evaluation of observable phenomena or groups of related facts and occurences to arrive at critical evaluations in terms of numerical concepts. In the case of library education, statistical data are essential tools for planning, budgeting, programming, and decisionmaking. By comparison with other schools and their accomplishments, individual education programs can evaluate their educational progress and financial and faculty needs. No claim is made, however, that all information which academic institutions and library programs require is of statistical nature. Without statistical data no administrative planning on the institutional, State, regional, or national level can effectively be undertaken, because budgetary and legislative requirements make the availability of numerical data mandatory.

The three perimeters of library education statistics are: (1) the source for all data is institutional, (2) the data requirements on the institutional, State, regional, and national level are nearly identical, and (3) the survey universe is small, but an account of its library manpower component is of significance for the Nation's library development. To illustrate these points three tables are given. Table 1 indicates the library education universe in January 1968; table 2 shows the geographic distribution of library education programs; and table 3 illustrates the manpower input over the last decade.

TABLE 1

LIBRARY EDUCATION UNIVERSE, JANUARY 1968

Graduate, accredited	39
Graduate, unaccredited	78
Undergraduate, general	183
Undergraduate, technician	57
Programs planned	27
No replies	26 (estimate)
Total	410

Source: Frank L. Schick, ed., *North American Library Education Directory and Statistics 1966-68* (Chicago: American Library Association, 1968), p. x.

TABLE 2

DISTRIBUTION OF U.S. LIBRARY EDUCATION PROGRAMS BY STATE, 1967/68*

STATE	ACCRED. GRADUATE	NONACCRED. GRADUATE	UNDER-GRADUATE	TECHNICIAN ONLY	PLANNING STAGE	TOTAL
Alabama		1	5	1		7
Arizona		1		1		2
Arkansas			7			7
California	3	4	6	21	3	37
Colorado	1			3	1	5
Connecticut					1	1
Delaware			1			1
District of Columbia	1		1			2

*See note, next page.

TABLE 2—Continued

DISTRIBUTION OF U.S. LIBRARY EDUCATION PROGRAMS BY STATE, 1967/68*—Continued

STATE	ACCRED. GRADUATE	NONACCRED. GRADUATE	UNDER-GRADUATE	TECHNICIAN ONLY	PLANNING STAGE	TOTAL
Florida	1	2	4	3		10
Georgia	2	1	7		1	11
Hawaii	1					1
Idaho		1	2			3
Illinois	3	2	7	3	2	17
Indiana	1	3	2			6
Iowa		1	3		1	5
Kansas	1		8			9
Kentucky	1	4	5			10
Louisiana	1		10			11
Maine		1				1
Maryland	1	1	3	1		6
Massachusetts	1	3	3		1	8
Michigan	3	2	3	6	1	15
Minnesota	1	9				10
Mississippi		2	5			7
Missouri		2	5	2		9
Montana		1	2			3
Nebraska		1	7			8
Nevada		1				1
New Hampshire		1				1
New Jersey	1	1	6	2		10
New Mexico			4			4
New York	4	4	1	2	3	14
North Carolina	1	3	2		1	7
North Dakota		1	4			5
Ohio	2	1	9	4	2	18
Oklahoma	1	1	5			7
Oregon		4	2	2		8
Pennsylvania	2	6	7		3	18
Rhode Island		1				1
South Carolina		1	5			6
South Dakota			4		1	5
Tennessee	1	3	3		1	8
Texas	3	2	4	1	1	11
Utah		2	2	1		5
Vermont			1			1
Virginia			4		2	6
Washington	1	2	5	3	2	13
West Virginia		2	5			7
Wisconsin	1	1	10			12
Wyoming			1			1
Puerto Rico			2	1		3
TOTALS	39	79	182	57	27	384

*The State programs (exclusive of Alaska) include other areas—The District of Columbia and Puerto Rico.

TABLE 3

U.S. BACHELOR'S AND HIGHER DEGREES IN ALL FIELDS AND IN LIBRARY SCIENCE, 1958-59 TO 1964-65 AND 1966-67 TO 1967-68

	Degrees in all Fields		Library Science Degrees		
Year	Number of Degrees	Percent Change from Previous Year	Number of Degrees	Percent Change from Previous Year	Percent of all Degrees
1958-59	464,008	5	1,967	5	.4
1959-60	479,215	3	2,262	15	.4
1960-61	490,628	2	2,371	5	.5
1961-62	516,996	5	2,567	8	.5
1962-63	514,323	1	2,827	10	.5
1963-64	614,194	19	3,375	19	.5
1964-65	663,622	8	3,846	14	.6
1965-66	679,500*	2	--	--	--
1966-67	740,800*	9	5,390	--	.7
1967-68	828,700*	12	6,106	13	.7

*Projected

Source: U.S. Office of Education, *Projection of Educational Statistics 1975-76* (Washington, D.C.: U.S. Government Printing Office, 1967), p. 27; *The Bowker Annual 1967* (New York: R.R. Bowker, 1967), p. 272; and Frank L. Schick, ed., *North American Library Education Directory and Statistics 1966–68,* p. x.

Due to the small universe of library education programs the costs of collecting library education statistics is relatively low.

The Library Education Statistics Record: 1876 to 1968: The first significant publication with substantial statistical information about American libraries and librarians appeared in 1876 under the title *Public Libraries in the United States of America, Their History, Condition and Management: Special Report.* The title of this Government document of over 1,200 pages is misleading because it considers all types of libraries. Issued by the Bureau of Education of the Department of Interior, it is of importance for summarizing library developments to 1876 and for establishing the precedent that the collection of statistical data concerning librarianship is the responsibility of the Office of Education. The scant information about librarians and their education is not given in statistical terms.

The last landmark report concerning U.S. library development, *Library Services for the Nation's Needs: Toward Fulfillment of a National Policy; Report of the National Advisory Commission on Libraries,* makes various comments regarding library education and manpower. The Report states "although manpower is a most critical library problem, Federal support has been almost wholly given to buildings and materials, with limited support for training and almost none for salaries."[1]

Library Education Statistics of the U.S. Office of Education: During the nearly 100 years following the 1876 report, the U.S. Office of Education has continued to collect and publish library-related statistics at irregular intervals with varying scope and intensity of data collection.

The reporting on library education as now organized had its beginnings with the publication of the Williamson Report in 1923.

The first recent Office of Education release dealing specifically with library education statistics appeared as a mimeographed 15-page issue of July 30, 1957, under the title "List of 563 Institutions of Higher Education in the United States Announcing Courses in Library Science

[1] National Advisory Commission on Libraries, *Library Services for the Nation's Needs,* p. 13.

and/or Bibliography." It was partly misleading because it combined library education programs with introductory courses on how to use the library. For this reason it was never officially published but deserves credit for having made a start.

Between 1963 and 1966 the Library Services Branch of the Office of Education provided the following publications in the field of library education and manpower:

1. *Library Science Dissertations,* 1925-60. *Annotated Bibliography of Doctoral Studies,* by Nathan M. Cohen, Barbara Denison and Jessie C. Boehlert, Washington, D.C., U.S. Department of HEW, 1963.

2. *Library Education Directory,* 1962-63, by Sarah R. Reed and Nathan M. Cohen. Washington, D.C., U.S. Department of HEW, 1963.

3. *Continuing Education for Librarians—Conferences, Workshops, and Short Courses,* 1964-65, by Sarah R. Reed. Washington, D.C., U.S. Office of Education, 1964.

4. *Continuing Education for Librarians—Conferences, Workshops, and Short Courses,* 1965-66, by Sarah R. Reed. Washington, D.C., U.S. Department of HEW, 1965.

5. *Library Education Directory,* 1964-65, by Sarah R. Reed and Willie P. Toye. Washington, D.C., U.S. Department of HEW, 1965.

6. *Problems of Library School Administration. Report of an Institute: April 14-15, 1965,* edited by Sarah R. Reed. Washington, D.C., U.S. Department of HEW, 1965.

7. *Library Manpower. Occupational Characteristics of Public and School Librarians,* by Henry T. Drennan and Richard L. Darling, Washington, D.C., U.S. Department of HEW, 1966.

Only items 2, 5, and 7 are primarily statistical, but some statistical information is also given in the other publications.

The Office of Education has engaged in statistical surveys which permitted a continuous overview of library science degrees from 1939 to 1965 (U.S. Office of Education, *Earned Degrees Conferred).* Schick reported on these developments from 1959 to 1965 and 1968 to 1969 in the *Bowker Annual of Library and Book Trade Information,* and Reed for 1966 and 1967 in the same source.

In addition, the U.S. Office of Education provided funds which in part assisted financially with the preparation of the *North American Library Education Directory and Statistics 1966-68,* published by ALA in August 1968. The USOE is also providing funds for the preparation of the *North American Library Education Directory and Statistics, 1968-70.*

Other Library Education Statistical Studies: There are four groups of related studies:

1. *General nationwide library education statistical studies:* Between 1937 and 1963 the American Association of Library Schools Statistics Committee provided a continuing series of enrollment statistics. These annual surveys, depending on the committee's composition and cooperation, were primarily the chairman's responsibility. Publication of these surveys appeared in the *AALS Newsletter* until 1960. Since 1960 the surveys have been published in the *Journal of Education for Librarianship.* Their time gap was as short as 1 year or as long as 4. The main shortcoming of these reports is that they covered only the ALA accredited graduate library schools, about one-tenth of the total number of programs offering library education.

A series of studies on beginning library school salaries was conducted by Don and Ruth Strout, published for 15 years in *The Library Journal.* These surveys have been continued for the last 2 years by Carlyle Frarey in the same publication; they cover only the ALA-accredited graduate programs.

In addition a number of shorter studies appeared in the literature of which the following three serve as recent examples:

* "Doctoral Programs in American Library Schools," by Guy Marco, *Journal of Education for Librarianship* 8:6-13, summer 1967.

* "Library School Deans: A Superficial Profile," by W. C. Blankenship, *Journal of Education for Librarianship* 8:20-27, summer 1967.

* "Library Science Training in Teacher Education," by Evelyn J. Swanson, *Journal of Education for Librarianship* 8:149-162, winter 1968.

2. *Information science education statistics:* In this area several studies originated with the Biological Sciences Communication Project at George Washington University of which the following two are cited:

   * *Survey of Practical training in Information Science,* by Marilyn C. Bracken and Charles W. Shilling. Biological Sciences Communication Project, George Washington University, April 1967.

   * *Science Information Specialist Training Program:* A Progress Report, by Charles W. Shilling and Bruce Berman. Biological Sciences Communication Project, George Washington University, March 1968.

3. *Health sciences library education statistics:*

   * *Feasibility Study for Continuing Education of Hospital Librarians: Interim Report No. 1,* by Alan M. Rees. Cleveland, Case Western Reserve University, January 1968.

   * "Medical Library Education in the U.S. in Relation to Qualifications of Medical Library Manpower in Ohio," by Alan M. Rees, Leslie Rothenberg and Barbara Denison. *Medical Library Association Bulletin* 56:368-79, October 1968.

   The Health Science Library Education and Manpower studies are funded by the National Library of Medicine.

4. *Library manpower studies:* In this area the Office of Education made several grants to the Library Schools of the University of Illinois and the University of Maryland. The following deserve particular attention:

   * *Characteristics of Professional Personnel in College and University Libraries,* by Anita R. Schiller, Urbana, Illinois. Library Research Center. Graduate School of Library Science, University of Illinois, 1968.

   * An interdisciplinary stud, into manpower issues of librarians, conducted at the University of Maryland School of Library and Information Services. Dr. August Bolino is analyzing library statistics relating to employment and occupational patterns in librarianship. The result of this study will appear as a monograph.

   * Health Science Library Manpower, 1968. A study financed by the National Institutes of Health/National Library of Medicine has been conducted by David Kronick, University of Texas, and Alan Rees, Case Western Reserve University. The results are being published in the Bulletin of the Medical Library Association. Part 1 appeared in the January 1970 issue; part 2 appeared in the October 1970 issue; the rest will be published in 1971.

Data Requirements

Library education statistics available on a continuing basis are essential to research and development in the areas of professional education, manpower utilization, and legislative and budgetary support. The essential library education data were presented in detail by Sarah R. Reed in the following two publications:

* *Library Statistics: A Handbook of Concepts, Definitions Terminology,* prepared by the Staff of the Statistics Coordinating Project, Joel Williams, Director, Chicago, ALA, 1966. (Library Education, pp. 117-25)

* *U.S. Library Statistics Standard,* New York, U.S.A. Standards Institute, 1969. (Library Education, pp. 30-31)

These data requirement items are summarized in table 4.

Reed wrote in 1966 that "library school statistics are critically needed on a regular basis for enrollments, degrees, faculty, budget, and salaries. Also needed from time to time is information which can be obtained from special studies of curriculums, summer session programs, opportunities for continuing education, faculty workloads (including committee assignments, direction of theses, research, etc.), faculty research and publications, tuition costs, admission policies, degree requirements, etc." She also suggests that followup studies of alumni be made. A 4-year span for the collection of such supplementary data would be sufficient.

Data Frequency Requirements

The optimum frequency for library education statistics, like other academic activities, would be annual collection. A biennial data collection and speedy publication in the beginning of the calendar year would not present undue hardships to the primary users of the data. It would permit the heads of library education programs and university administrators to compare their performance with those of other schools, and would assist in the preparation of their budgets.

TABLE 4

LIBRARY EDUCATION DATA REQUIREMENTS

A. Library School Data

1. Accreditation status
2. Curricular emphasis
3. Course offerings by credit hours
4. Degree requirements
5. Income of schools from parent institution and other sources
6. Expenditure of schools for administration, salaries, fellowships and scholarships, research, library materials, faculty travel, other items
7. Index of institutional support
8. Admission policies
9. Instruction costs
10. Tuition costs
11. Institutes, workshops, short courses
12. School activities in related fields (information science, instructional media and technology)

B. Student and Manpower Data

1. Enrollments by level, sex, credit hours
2. Placement of graduates
3. Beginning salaries of graduates by types of library
4. Awarded degrees
5. Graduate migration

C. Faculty and Manpower Data

1. Number of faculty and staff
2. Faculty characteristics by age, sex, education, experience, and specialization
3. Faculty employed
4. Salaries of faculty and staff by academic rank and workloads
5. Research activities
6. Faculty activities relating to professional organization
7. Faculty activities relating to campus
8. Other faculty activities

Other users of these data include various national and State governmental agencies, professional associations and organizations, and libraries. Their main interest is focused on library and information science manpower developments, including salary data, employment conditions, transfers, migration, and retirements. To these users an annual survey cycle is desirable, but an assured 2-year frequency would probably suffice.

Recommendations

Due to the substantial connection and overlap of library education and manpower data requirements, recommendations for data collection, and publication responsibilities must embrace both areas.

Library Education Statistics: The financial support for library education statistics has primarily come from the

U.S. Office of Education. It is suggested that the collection and publication of statistical data regarding library and information science education programs are to be considered the responsibility of the U.S. Office of Education and that ALA and the other professional organizations of librarians and educators use all means at their disposal to encourage the U.S. Office of Education to continue its efforts in this area on a continuing scheduled basis of at least biennial data collection and publication.

Since the Office of Education is responsible for higher education statistics it seems obvious that the library and information science education programs on over 400 college and university campuses are part of the same operational data system. Data collections on the programs of the 2,400 academic institutions can most efficiently and least expensively be conducted by the Office of Education, which has the professional and statistical competence, the computer capability, and the legislative mandate to undertake this work. Computer operations will be simplified if handled in a manner compatible for higher education data collections. (However, this statement does not, as such, endorse the HEGIS plan of the Office. The Library Education Statistics mailout—to cite one example—should be directed to the heads of library schools and not to the presidents of colleges and universit.es.)

The professional organizations should be invited by the Office of Education to serve in an advisory capacity to its library statistics survey operations. Until the Office of Education has expanded its statistical operations, the national professional organizations (such as the American Library Association) may need to assist in collecting and publishing library educational data via contracts with the U.S. Office of Education.

Whether the Office of Education or its contractor manages these surveys all efforts should be made to combine the data collection and publication for library and information science programs.

Library Manpower Statistics: The National Advisory Commission on Libraries commented strongly on the lack of all library-related statistics. Regarding manpower and library education it stated at that time:

> The U.S. Office of Education should analyze the library personnel situation on a regular basis, compare it with standards established by itself or the library associations and publish its findings. It should, further, maintain a clearinghouse of information on all innovations in library education and training and on all efforts of libraries to make more efficient use of personnel.[2]

The Commission also made specific recommendations relative to the profession at large. "First, the library profession should undertake a program of ongoing research in librarianship in order to improve functional efficiency and facilitate the establishment of a variety of training programs.... Research in library education itself should be encouraged.[3]

Speaking about itself as a permanently constituted agency, the Commission indicates that it would work for improved salary scales.[4] Unfortunately no significant up-to-date national studies regarding salaries of public and school librarians exist. Selective salary statistics of the largest research libraries were recently collected by the Association of Research Libraries, and salary data are collected by the Enoch Pratt Public Library annually for 18 large public libraries. Academic library salaries have been collected with some regularity by the Office of Education. Special libraries (through the Special Libraries Association) have occasionally collected limited information in this area.

A recently appointed Salary Goals Subcommittee of ALA-LAD-PAS has recommended that ALA collect detailed salary data. It proposes a program comparable to one conducted annually by Committee Z of the American Association of University Professors. Mary Gaver, in an article in the September 1968 *ALA Bulletin,* presents the recommendation of the Ad Hoc Committee which she chaired that "ALA give highest priority... to the establishment of a unit within headquarters responsible for gathering library manpower data and information on all types of library personnel." She refers to library education needs and states that such a manpower unit "could be established first as a part of some broader data gathering operation within ALA...."[5] Her committee is aware of... the improvement in promptness and effectiveness of data gathering by... the Office of Education but it is nevertheless of the opinion "that this does not substitute for, nor lessen ALA's responsibility in this regard, and that ALA can no longer rely upon any other agency for either prompt or continuing data gathering on manpower in its own interest."[6]

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[2] National Advisory Commission on Libraries, *Library Services for the Nation's Needs,* p. 32

[3] Ibid.

[4] Ibid.

[5] Mary Gaver, "Library Manpower Problems," *ALA Bulletin* 62 (September 1968), p. 997.

[6] Ibid., p. 998.

This paper completely endorses the position that manpower statistics are a continuous professional responsibility which cannot be delegated. Library associations have a continuing interest which is not subject to shifts of governmental emphasis or priorities. It is suggested that all library associations might pool their resources to establish a library manpower data bank which would result in a well rounded survey and publication program and enable the various library associations to monitor their manpower developments. Such an operation could be financed with contributions from foundations and library associations. It is recommended that a Manpower Data Bank be established by ALA as a program of an ALA Library Manpower and Statistical Research Office. This office could provide urgently needed assistance to the ALA legislative office and program.

The Manpower Data Bank would be in the position to produce on demand essential data which could be obtained either through self-generated surveys or from selected information drawn from OE-produced tapes.

The presently prevailing total data dependence of library associations on government agencies should be adjusted to a partnership relation and a Library Manpower Office would be the first step in this direction. Only a reasonable amount of independence will create the balanced climate which is essential to creative cooperation between Government agencies and professional associations.

Summary of Library Education and Manpower Recommendations

1. Library education statistics including information science, media and other related fields where they are an integral part of the preparation of librarians are to be considered part of the higher education statistics.
2. As far as practical and possible, data regarding library and information science education programs should be published together, as a unified presentation and publication.
3. The data requirements should be formulated through the cooperative efforts of the Library Education Statistics Committee of ALA's Library Administration Division, ALA's Office for Library Education, the ALA Washington Office, the Association of American Library Schools, other library associations, concerned Federal agencies, and other organizations and be subjected to periodic reviews.
4. Library education data should be collected annually or biennially (by the USOE) directly from the library education programs of higher educational institutions in identical form. These data will permit analytic and retrospective trend presentations in statewide and national tabulations and include directory type institutional listings.
5. The resulting publication with some descriptive and analytic text should be made inexpensively and widely available.
6. The ALA in cooperation with other library associations should assume the responsibility for the collection, publication and dissemination of library salary and manpower data.
7. It is recommended that there be established a library manpower data bank (as part of a suggested Office of Manpower and Statistical Research of the ALA) which would provide coordination and assistance to (a) the ALA Washington Office, (b) all divisions of ALA and other library associations, (c) government agencies on the national and State levels. Its data would come from its own surveys and from other statistical sources.

STATE LIBRARIES

(The State as a Producer of Library Statistics)

by S. Gilbert Prentiss

The *Standards for Library Functions at the State Level* defines the library role of the States as follows:

> States *provide* library service directly, promote service through other agencies, *coordinate* the various library resources, *aid* libraries financially, and *require* service through standards and regulations.[1]

Even as simple a definition of the State's library function as this one suggests some of the difficulties, not only of grouping the statistics of those functions with the major library type, but even of representing them statistically. The following paragraph from the *Handbook* helps to further explain the nature of the creature we are dealing with here.

> Because the various State library services are seldom administered by one central agency, the phrase 'library functions at the State level' is increasingly in use. The approach taken in the *Standards* is that of identifying the various services which should exist within a State and for which the State should take some responsibility. This responsibility may be exercised by providing library service directly, promoting service through other agencies, and coordinating the various library resources, with State financial aid and regulatory requirements serving as levers for library development. Central administration of the services, however, is not a requisite.[2]

Although the terminology used in referring to State library agencies and functions is no less confusing than the organizations themselves, most of the functions can be grouped into two major categories—those which are primarily "library services," such as the operation of a law library or a library program for the physically handicapped; and those which are primarily "library development" functions, such as statewide planning consultant services, the operation of a centralized processing program, etc. It is important to understand that the library development function, which may involve any and all types of libraries—school, public, college and university, or special—separately and in all kinds of interrelationships, is rapidly becoming the tail that wags the dog.

The great diversity which exists in library functions carried on by the different States is not only an indication of widely differing conditions among the States, but to a considerable extent it reflects the failure of the library profession-at-large to arrive at any clear understanding in its collective mind of what it wants and expects from State government. Many librarians, in fact, still think of a State library agency in the historic role of getting a little public library started in the rural community which lacks one. To those who have been paying attention, however, many significant changes have already taken place in State library agencies and there is every reason to believe they will continue—hopefully at a rate which stands a more realistic chance of catching up with the need.

In the past 10 years or so, a combination of forces having profound implications for library development of all kinds have forced a recognition among library leaders of the need, particularly at the national and State levels, for financial support, for services, and for leadership which would cut across all types of libraries and library use and across geographic and political boundary lines. Although those forces have frequently been described, it will not hurt to review them briefly here:

1. More widespread and more sophisticated educational and informational needs, resulting in more general use of library facilities and requiring a higher degree of coordination of specialized resources.

2. The exponential proliferation of knowledge itself, making it impossible for any library to maintain or service comprehensive collections in more than a very few subject areas.

3. Greater emphasis on equal educational opportunity for all.

4. The increased mobility of people, resulting in more frequent crossing of local governmental boundary lines for other services of all kinds.

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[1] American Association of State Libraries, ***Standards for Library Functions at the State Level*** (Chicago: American Library Association, 1963), p. 1. Editor's Note: The revised edition of the ***Standards,*** issued in 1970, was published after this paper was prepared.

[2] ALA, ***Library Statistics,*** p. 62.

5. The growing recognition of the importance of research, innovation, and experimentation.

6. The growing dependence on sophisticated, and expensive, equipment and techniques which are not economically feasible for smaller units of government.

7. Changes in methods of teaching.

8. The growing recognition of wide differences in the ability of localities to support quality library service.

9. By no means the least important, Federal grant programs requiring planning and administration by State government.

According to the background study on State library agencies prepared for the National Advisory Commission on Libraries, the "comprehensive State library" which responds to these and other conditions making up the current setting for all library service will provide the following services:

1. Leadership in the development and coordination of all library resources and services within the State, including those in school, public, academic, and special libraries and in the establishment of regional library networks which often will be part of existing and emerging national information systems.

2. Resources of statewide value, both for direct use by State government and as a backstop for local libraries of all types, in subject fields and to depths which have been predetermined by a careful appraisal of statewide needs and available library resources.

3. Special information services for State government officials, agencies, and institutions.

4. Consultant and promotion services for those libraries which bring facilities close to readers, particularly public and school libraries, but including college, university, reference and research libraries.

5. Administration and regulation of State and Federal categorical aid to local libraries, as well as aid for cooperative projects among libraries.

6. Administration of standards for libraries, certification of school and public librarians and workshops for the advancement of librarianship.

7. Programs for library trustees aimed at advancing the recognition and understanding of trustee responsibilities.

8. Research and planning leadership, including work with citizen groups, to stimulate steady improvement in statewide library resources and their utilization.

9. Leadership in establishing a body of State law congenial to the development of total library services of the highest caliber.[3]

Whether or not the State library agencies throughout the country will be able to rise to this new demand to function as a viable focal point for all library development at the State level remains to be seen. The National Advisory Commission itself has given prominent recognition to their present and potential role by urging, as one of five basic recommendations made to the President of the United States, "Strengthening State library agencies to overcome deficiencies in fulfilling their current functions." It should be made doubly clear here that the library functions mentioned in the foregoing list and referred to throughout this paper are not performed just by "State libraries," nor is any implication intended that such should be the case. Actually, library functions at the State level are carried on in most States by some combination of agencies which would include, among many others, the following examples: State libraries, State library commissions, education departments, State universities, library extension divisions, State councils for higher education, etc.

In any event, it is apparent that statistics relating to library functions at the State level have assumed in the library world of today more than a parochial interest.

Unfortunately, it quickly becomes equally apparent that there are some real problems in comfortably fitting library agencies at the State level into a nationwide library data system with other libraries, or, for that matter, even with each other.

Some of the more serious difficulties follow:

1. Organizationally, State library agencies are structured and operated in so many different ways that there isn't a single State that could be called "typical."

[3] Nelson Associates, Inc., *American State Libraries and State Library Agencies: An Overview With Recommendations,* A report prepared for the National Advisory Commission on Libraries, November 1967, p.3.

2. No two States offer the same library services, and the divergencies among their programs are not minor ones; they are fundamental and important.

3. Although State libraries are often grouped, for statistical purposes, with public libraries, they do not belong there. Forcing them into a classification where they do not really fit can only result in a distortion of what they are intended to represent, as well as distorting the statistical group into which they are forced.

4. A large proportion of the services which State library agencies render are not library services in the usual sense at all; they are services to libraries, and they require an entirely different approach to statistical reporting. In this respect they resemble the Federal agency and ALA more than they do any class of libraries.

The Statistics of Library Agencies at the State Level

Even as the State has a dual role in statistical matters—as both a gatherer and a producer of library statistics—so also is there a sharp dichotomy in the latter function. In other words, the statistical problems and solutions relating to "library development functions" at the State level will be quite different from those which will be referred to hereafter as simply "library services" at the State level.

Library Development Functions: To the extent that statistical data about library development resources and programs in other States can help library development agencies to become stronger and more effective, this will be of broad general concern. It would, in fact, normally be only for purposes of comparison that most statistics about one State agency would have any use outside that State (albeit this is a very important use). The exceptions to this generalization might occur in the case of data about the use of State funds and Federal funds administered by the States; practically all data about sources and expenditures of money are comparatively revealing and will be of interest to someone. Collectively, most other statistics about State library development agencies would have little significance for anyone. Furthermore, a major share of the functions of State library development agencies are unique to this type of agency and, in general, do not lend themselves to statistical tabulation.

At the moment, the most useful information about State library development agencies, in addition to the amounts of money spent for various purposes, is likely to be mainly nonstatistical descriptions of the organization resources, and programs. This kind of information should be made available from a national data bank, so that interested librarians and others, whether they are associated with State library agencies or not, could find out readily about their own and other State library development agencies and their activities.

Richard Darling makes clear in his chapter on school library statistics, that school library supervisory services cannot be reported quantitatively, and the point is equally valid for supervisory or library development functions at the State level. As has already been suggested, expenditures for these purposes, and to some extent staff and other resources which may be involved, can be quantified and should be part of a national program. Otherwise, about the best that can be done at this time may be type of checklists of services suggested by Dr. Darling, which simply indicate whether a particular service is being provided.

It must be observed, however, that unless descriptions of services are considerably more detailed than it is usually practicable to make them, and uncommon judgment is exercised in general, the results will be questionable in terms of the effort expended. How much has one learned, for example, by being told that a State agency provides "recruitment services." or "cooperates with other State library agencies?" It would, of course, be somewhat more revealing to know how much money is being spent or how much staff effort is going into these services.

In spite of the very real difficulties of reporting in any depth on State library development agencies, the information is of sufficient importance to justify a considerable amount of study and experimentation. Perhaps for the present the most useful approach, in addition to a few basic statistical data, would be for each State to place on file in the national data bank a fairly detailed description of its State library development agencies, using the national standards for library functions at the State level as a guide.

In terms of planning for a nationwide library data system, the decision does not have to be made whether library development activities at the State level ought to be categorized as an activity of the States. Of necessity, the data will have to be reported by the States, but the intended uses of whatever data goes into a nationwide system will determine how it should be classified. That

classification must be such that it may later be identified for exactly what it is and arranged or rearranged to serve both of these and other purposes.

Library Services: Such a State-level library service as a legislative reference library or a library unit serving the State department of education, or any other library service to State government is, essentially, most closely related to "special" library services and should be so treated insofar as national planning for statistics is concerned. This approach is in accord with the recommendations of the *Handbook*. Similarly, a general type of library service rendered by the State to the population of State institutions, for example, and possibly library service to visually or otherwise handicapped persons, might properly be classified as a form of public library service. In both cases, however, the services are sufficiently specialized, and this fact may be of sufficient importance to the way in which the data are later used that they should be separately identified. Likewise, should their later most important use turn out to be for administrative or organizational purposes, it will undoubtedly be necessary to know whether they were provided by a State agency or by a municipal public library or by a private corporation. Thus, they should also be identified as produced by a State agency, even though there may be some present advantage in thinking of them as part of the public, special, or other type-of-library picture.

When the resources and services of library units normally serving only State government are extended to users throughout the State, whether directly and/or through an interlibrary loan structure or other system, they begin to acquire both a new dimension and a wider general significance. It does not seem, however, that the quality of serving a larger audience, even though that may include all residents of the State, should place them, as the *Handbook* suggests, in a statistical category with public libraries.

The problem here stems again from the failure of the library profession to clearly define functions. Is it, for example, really the distinguishing characteristic of public library service that it serves all comers? Should a college library which contracts with the State to provide a statewide backstopping service in a limited subject area report this as a public library activity and the collection as a public library resource? Admittedly, it will then have acquired certain of the characteristics of a public library function, but to categorize it as such is definitely misleading. Public libraries resting on a municipal tax base do not extend their services to anyone willy-nilly; they are as restrictive in a geographic sense as is the private college library within its particular college community. (In neither case does the fact that they extend interlibrary loans on a courtesy basis alter the principle.) When, however, any library accepts a formalized and compensated responsibility for statewide services to all other libraries, the particular service involved has really become something different from any existing type of library service, and a new statistical classification is implied, if the purpose of the statistics is to better understand what is really happening.

From the point of view of a nationwide statistics system, the more fundamental question, of which this a part, is, "What do we really want to know?" In this case the pertinent subquestions might relate to, (1) the exact nature and amount of the service that was provided, (2) by whom the service was provided, (3) to whom the service was provided, etc. Actually, if the data are reported and stored according to the building blocks principle it will be a matter of simple calculation to provide the answers to any or all such questions at any time in the future when the need might arise. Since it can never be determined with full certainty in advance exactly what will be required of data, it will be simpler and cheaper in the long run to classify it in as much detail as possible, even though this means that less can be collected and stored.

If the cardinal principle of orienting all library statistics to the end-product—library services to users—is followed, the proper place to measure a back-stopping or other intermediary function is at the place where it and the user meet, which is most often in the local library of one kind or another. That a user was or was not served, and how well he was served, are basic facts of general interest which will have a great many significant uses. Unquestionably, as cooperation and the sharing of resources increases, it is going to make less difference in the larger sense whether an item came from a public library collection, a college library, or somewhere else. It will, however, be a fact of considerable administrative or organizational importance to librarians and others responsible for planning and operating library services to know that the item was supplied or that the process was expedited by a particular intermediate agency.

To relate the implications of this to the question of classification of State library statistics in a nationwide library data system, it is likely they will serve the administrative and planning functions vastly better if, as suggested earlier, they are reported as closely as possible

in the same form as other library statistics, but are always identified as State library agency statistics, rather than throwing them into other major type-of-library categories. If this is done, they can, of course, later be grouped to serve any specific need which might arise.

Finally, although the statistical problems of library complexes were reviewed as part of the State overview chapter dealing with the State as a collector of library statistics, State library agencies are so deeply involved in their development, coordination, and operation, that they will undoubtedly be one of the chief producers of this category of data. More and more agencies, programs and complexes are being developed to further the process of giving library service, but these activities and units by themselves, usually do not end in a direct user service or transaction. The processes, resources, etc. which are involved here are administratively important and should be measured; yet normally it will not be the responsibility of any library to report them, and neither are they properly classed, statistically, with traditional library types. Thus it will fall to the State library agencies to collect and report such data. In many cases, these operations will be State supported and/or State operated, anyway. The State agencies, therefore, should accept with the profession-at-large the responsibility for developing appropriate measurements and guidelines relating to them.

SPECIAL LIBRARIES

by Logan Cowgill

When library statistics are discussed, at least two groups are particularly concerned; those who are the sources or producers of the statistics and those who are the users. Producers often do not view the production of statistics with any enthusiasm; certainly where repetitive or continuing statistics are required. Users also sometimes show a taste for quality as well as quantity. For both groups, I would like to consider a nationwide statistics system from the devil's advocate position that no statistics are really necessary, and to argue backwards through successive positions of greater need and usefulness.

The mechanism which is being used to develop a nationwide, comprehensive library data system—a project of the American Library Association's Statistics Coordinating Committee, assisted by a group of consultants—serves to provide participation for producers of the statistics—the librarians. Thus, if quantities of new statistics are advocated, librarians can hardly complain in the future about the burden of producing them. The mechanism for providing user, particularly nonlibrarian user participation, is not as apparent. This may be because users are more scattered and less identifiable. However, greater consideration needs to be given to this group's participation in the implementation, if not in the development, of the plan if it is to accomplish its major purposes.

Certainly both groups stand to benefit from a goal to produce better, not necessarily more, statistics. To this end also, multiple-use statistics should be encouraged wherever possible, and the number of limited-use statistics reduced to a minimum. By adhering to this concept, I attempt to emphasize only differences in statistical needs of special libraries as a category under the following topics:

1. The definition of special libraries and its statistical implications.

2. Development of the special libraries aspect of a nationwide library data system:

   a. Identification of current and historical data sources.

   b. Identification of current and potential data users.

   c. Surpluses and gaps in data needs, as identified in *Library Statistics: A Handbook* ....

   d. Data collection techniques—literature search, interview, observation, questionnaire design, and valid sampling.

   e. Data collection—frequency, authority channels, and source.

   f. Analysis and interpretation.

   g. Publication—library and nonlibrary channels.

3. Implementation of a nationwide library data system:

   a. Collecting agency for:

      Federal libraries.

      State and local government libraries.

      Industrial and trade libraries.

      Nonprofit and independent institutional libraries.

   b. Analyzing and interpreting agency.

   c. Advisory groups:

      Revision and updating of plan.

      Analysis and interpretation.

      Time schedule for testing and progressive implementation.

4. Conclusions and recommendations.

Although conclusions and recommendations are given as a separate category, statement and discussion of them are included also in the text.

1. Definition of special libraries: statistical implications

The definitions for a special library, as contained in the *Handbook* and the USASI (U.S.A. Standards Institute)

Standard, are based on the specialized scope of collection and the relationship of this scope to the mission of the library's sponsoring or controlling organization. While true as far as it goes, this definition by its incompleteness makes the subject scope of the collection the major factor which identifies the category of special libraries. I believe that how special libraries operate, how they serve the user, and their active participation in the information cycle of a real-time activity are more important factors for a definition which distinguishes these libraries from those which serve mainly educational or recreational needs.

The current limited definition creates at least two problems of statistical significance: first, an undue emphasis upon the importance of statistics concerning collection size, format, and subject content in relation to those concerned with operation; and second, a barrier to identification of the similarities rather than the differences, between special libraries and other information type activities.

These information type activities, whether labeled as special libraries or not, should be included to the extent that such activities include the full range of library-like activities, such as: acquiring, organizing, searching, and disseminating information in a packaged form.

Problems of definition and the relationship between special libraries and other information activities, such as: information centers, information analysis centers, documentation centers, referral centers, clearinghouses, and so forth have been discussed in the last decade. Dr. Ann Painter, of Indiana University, has recently conducted a literature review on this subject as a part of an Army-sponsored project for the Federal Library Committee in which she concludes that: "indications are that libraries are moving towards the information center and the information centers are moving towards the libraries in all aspects."[1]

Thus, looking to the future, a revision of the definition statements, as contained in the initial paragraphs of chapter 4 in the *Handbook* and the USASI Standard is necessary. The Painter literature review can serve as a starting point with the Special Libraries Association providing a knowledgeable individual to develop a proposed definition which could be tested in the pilot phase of the plan's implementation. The definition could also be field tested in coordination with the Office of Education and its contract with the University of Pennsylvania to perform the systems analysis for developing a statistical data system in libraries and information science.[2] Useful test environments within the Federal Government and out could be sought also through channels of the National Science Foundation and Committee on Scientific and Technical Information of the Federal Council of Science and Technology.

In summary, a revised definition is basic to accurate and useful statistics; otherwise, statistics can create for librarians, and for others, misleading bases for important decisions.

2. Development of the plan

a. Definition of data sources: Sources of special library data vary as do the libraries themselves and their diverse missions and organizational relationships with their supporting organizations. With the exception of a few research libraries, such as the Henry E. Huntington Library, most special libraries are part of and serve an organization which has a nonlibrary purpose. Since special libraries are generally also too small in staff to have full-time management activities, statistical data keeping will often be either a part-time and casual activity of the librarian, or an integral part of the overall management reporting system of the parent organization. Therefore, both data formats and channel of reporting are likely to be general management rather than library oriented.

A review of the standard operating procedures and other procedural contracts and regulations established by the parent organization will show a great variety in reporting requirements. Reporting of a specialized library kind thus will be an additional burden. For example, even in one category alone of special libraries—those in Federal Government—a recent publication of an Army-sponsored project for the Federal Library Committee, *Guide to*

[1] Ann F. Painter, "The Role of the Library in Relation to Other Information Activities," TISA Project Report No. 23 (U.S. Army, Office of the Chief of Engineers) for the Federal Library Committee, Washington, D.C., August 1968, p. 51. Available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151, $3 per copy, 65¢ for microfiche.

[2] "A Systems Analysis of the Library and Information Science Statistical Data System," a project funded by the USOE Bureau of Research. Morris Hamburg, University of Pennsylvania, project director. In Progress.

Laws and Regulations on Federal Libraries,[3] demonstrates the diverse, ad hoc, or even completely absent character of the reporting requirements which the Federal Government itself imposes. If this is the situation in a large organization which has gathered statistics of all kinds from itself and others for many years,the situation in non-Federal Government organizations can be expected to be no less difficult.

As the format and channels for special libraries data are likely to be nonlibrary in character, data sources in a range of industrial and government research organizations need to be examined to identify positively or negatively the existence and kind of library data now being gathered.

b. Identification of data users: This aspect of the development of a nationwide library data system offers most towards the goal of better statistics. Who the data user is, how and why he uses the data are basic to the definition of user need. Effort, time, and money applied to answer these questions will produce more effective results than applied to almost any other single aspect of a nationwide data system.

There are certain more obvious categories of data users which can be identified; such as: librarian library managers, nonlibrarian library managers, and others who are concerned with libraries such as directors of research, funding authorities, urban planners, trustees, equipment suppliers, publishers, individual library users, and still others. Each of these users has some degree of legitimate requirement that the data be useful to him.

c. Surpluses and gaps in the Handbook: Since it is my hope that the gathering of more library statistics is not being encouraged, I feel constrained to emphasize deletions as well as additions to the types of data covered in the *Handbook.*

Reporting on collection size and volume of circulation has a long tradition. Such data have limited usefulness for special library purposes especially if there is a revised definition. Significant effort to make this kind of data numerically accurate is misplaced. Special libraries generally do not have any accumulative responsibility so that comparative size is not *per se* significant. In fact, a special librarian may choose to take pride in the fact that his collection is not growing in size, but rather that his collection is select and current. Fat libraries, like people, often show the lack of exercise or use, especially as they grow older.

Data related to activity of the collection are the more needed; and this might be more usefully provided by data concerning size by broad category and types of materials with acquisition and discard being expressed as ratios of general size, and in relation to chronology.

The effort to identify both operating and capital expenditures will be productive only if such expenditures can be allocatable in fact against the library operation. Much misinterpretation is possible when such data have to be estimated, as is often the case for special libraries. For this type of data, a preliminary question as to whether the data are now available in a hard form will save some grief. This is not to say that expenditures or costs are unimportant, but rather to say that estimates based upon local practices are often less than useful.

The need for additional categories of data, especially in relation to operations, also should be considered. New emphasis upon user fees in certain areas of special library service suggests reconsideration of the *Handbook* statement that no inquiries concerning income are necessary.

The section of the *Handbook* chapter called data processing needs updating and a change of title. As mechanized systems become more and more a part of ordinary library operations, more precise identification may be required.

A limited number of additional data types may be worth consideration. For example, a carefully phrased question to determine the hierarchical or administrative location of the library in the sponsor organization can be more revealing concerning library operations than years of data on collection size. The organizational title of the next higher level manager responsible for the library would point to this kind of an answer.

Developments in personnel classification within the Federal Government and elsewhere suggest that personnel categories could be expanded to include: professional librarian, professional information specialist, and professional subject specialist.

For libraries in the Federal Government, and in those sections of industry heavily involved with Government

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[3] William Sigfrid Strauss, ***Guide to Laws and Regulations on Federal Libraries*** (New York: R.R. Bowker, 1968). Also issued in limited quantity as an Army Technical Library Improvement Studies (ATLIS) report.

contracts, the identification of data prepared for the Planning-Programming-Budgeting System (PPBS) should be considered. If identified as a separate program element, useful data related to library operations might be found. If not identified as a separate element, identification as a part of overhead or other program elements would point to further sources of data.

d. Data collection techniques: There seems no reason why library data collection techniques should not be as sophisticated as those used in other professional fields. Thus, implementation of a nationwide data system in special libraries should contemplate the steps used in modern technical project development:

1. Literature search to establish the state-of-the-art in library statistics, their availability, and use.

2. Onsite interview with qualified individuals having experience in current operations of special libraries.

3. Onsite observation of operations in selected types of special libraries.

4. Pilot test of breadboard questionnaire design.

In addition, because of the scattered location and small staff size of special libraries, use of validated sampling techniques, instead of accumulation and comprehensive coverage, should be considered. Moreover, since as previously noted, sources for statistical data on special libraries are often outside the library, more indepth analysis of sources is feasible for a limited number of samples.

Since the previously noted Pennsylvania University contract with the U.S. Office of Education is just beginning, design development of the plan can be coordinated usefully with the systems analysis approach of that contract.

e. Frequency, authority, and channels for data collection: A nationwide library data system, particularly its questionnaire design aspects, should include careful consideration of the effects of final choice in the authority under which the data is collected, the channels used in collecting the data, and frequency of collecting.

Requesting authority and reporting channel have an impact upon the reporting initiation point which can be quite troublesome. Since special libraries are generally part of a much larger organization, particularly in industry and government, reporting, as a function, is often handled by special groups who may be quite remote physically and organizationally from the library operations upon which they are reporting. In such situations, the reporting group will pay as close attention, sometimes more attention, to the requesting source and reporting channel as to the content of the report requirement. Both accuracy and promptness of response will be effected. Development of a nationwide library data system should consider alternative or multiple data collecting agencies.

f. Analysis and interpretation: The best designed questionnaire will produce data which require analysis and interpretation, since new uses for the data uncontemplated in the plan will quickly arise. Therefore, a data system should include the means for accomplishing this function promptly, since such a function should precede publication of the data.

Scattered data sources, variations in special libraries operations, and other factors stress the importance of this aspect of a data system to special libraries. Lack of previously collected data generally makes inadequately analyzed and interpreted data on special libraries particularly vulnerable to misuse.

g. Publication: Manner and promptness of publication greatly influences data use. Several alternatives relating to publication in whole or in part, by one or more publication channels, need to be considered. The inclusion of professional associations, such as the Special Libraries Association and the American Society for Information Science for broad categories of data, and others such as the Medical Library Association and the American Association of Law Libraries for data related to their types of libraries, would provide useful feedback and promote continuing participation of data producers. Data users, as types, may also require special compilations or rearrangements of the data.

3. Implementation of the plan

Within the sections of plan development this paper has noted the importance of certain factors which are carried over in the implementation phase as well. Among these are the reasons for careful selection of the agency or organization which collects the data.

For this aspect of implementation of a nationwide library data system, special libraries can be divided into the following categories:

Category	Recommended Collecting Agency
a. Federal Government	Individual Agency Office of Management and Budget (formerly Bureau of the Budget) NCES
(The collection of library statistics from Federal agencies requires coordination of all three of these areas. The function of the Federal Library Committee would be to bring these diverse agencies together into a cooperative program.)	
b. State and local government	State library agency
c. Institutional and trade	Bureau of the Census
d. Professional, society, and other independent institutions	Special Libraries Association

It is not intended by the preceding recommendations that the National Center for Educational Statistics should be excluded from collecting statistics on special libraries; the Center is particularly important for establishing the requirements and monitoring the collection of data. However, there are, I believe, a number of cogent reasons for considering the recommended alternatives for collection. For example, in the Federal Government, inquiries of one agency concerning the operations of another agency on the same or higher level, where not backed by specific statute, do not receive high priority for response; and knowledge of the mission and responsibilities of the U.S. Office of Education may be limited within industrial and trade channels, while responses to business censuses are a continuing fact of life.

Coordination of terminology and programming in the American Library Association through its Statistics Coordinating Committee is essential, so that continuing monitorship and professional interest can be maintained. User and professional statistical advice, as well as professional librarian advice not otherwise represented within ALA, can be added through outside advisers.

4. Conclusions and recommendations

a. Revised and expanded definition for special libraries is necessary to statistics collection.

b. Scattered sources, scattered users, and a diversity of operating situations in special libraries require a greater effort towards the identification of data sources and data users to secure meaningful statistics. Therefore, development of a nationwide system of library statistics should include heavy emphasis on the determination of user needs as the basis for deciding type and frequency of data collection. Such user analysis should also cover significant nonlibrary need.

c. Development of special library statistics involves the experience of at least three types of individuals: special librarians, statisticians, and various skills represented under the rubric of statistics user. Probably, the last group can be characterized for the most part as managers or administrators. Therefore, both development and implementation of a library data system should include participation of these types at least through the mechanism of advisory groups.

d. The integrity of the professional librarian is not compromised by the recognition of need for other professional assistance. Library organizational studies have noted the lack of recognition and use by librarians of recently developed management science techniques, including systems analysis and statistical data systems development. Therefore, the systems and statistics capabilities of the Office of Education, in its cited Pennsylvania University contract, and other management research facilities should be exploited to the fullest.

e. Previous library statistics have inevitably contained a generous amount of soft data or estimates. Therefore, development of a library data system should include a pilot test phase in which, for example, the initial questionnaire design would discourage the use of estimates. Indeed, respondents would be encouraged to reply, where appropriate, no such statistics available. Such negative responses would identify more precisely the soft data areas, reduce the temptation to use

estimates for interim purposes, and eliminate the variables introduced by local, often unknown, estimating techniques. For additional information, corollary questions concerning the negative responses could be asked; such as: if such statistics were available, would they be used, to whom, and how much effort would have been required to collect them.

FEDERAL LIBRARIES *

by Paul Howard

Purpose: The purpose of this statistical program is the collection of data, standardized for Federal libraries and information centers and compatible with those collected from outside the Government, for the following uses:

1. Managing individual programs
2. Overall Federal planning
3. Compiling national figures on the status and development of libraries and information centers
4. Developing a data base for education and research

Scope: Federal libraries are of many kinds, including all those with which the other papers in this planning document are concerned. In addition, the close relationship between libraries and information centers poses a problem so pervasive in the Federal Government that it will be misleading not to include both in a final overall statistical program. For this reason the projected scope of this statistical program should include all types of organization defined in this section. However, the initial phase could be limited to those Federal libraries described in the third, fourth, fifth, sixth, and seventh types listed.

Types of Federal Libraries and Information Centers

1. *Federal Library.* An organized collection of published and other materials with a staff trained to provide and interpret such materials as required to meet the informational, educational and/or recreational needs of a Federal agency or installation and established as an integral part thereof.

2. *Presidential Library.* A combination of library, archive, and information center specializing in official records, memorabilia, literature, and other material concerning the life and administration of a specific President of the United States.

3. *National Library.* A national library is a library established by, or under the auspices of, a national government with governmentwide research responsibilities and a mission which includes national and international library program responsibility on behalf of its government.

4. *General Libraries.* Libraries having collections covering a broad range of subjects and providing service to meet the cultural, informational, educational, and recreational needs of a clientele such as military and civilian personnel, plus dependents at a military base; hospital patients; or foreign nationals using USIA libraries, etc.

5. *Academic Libraries.* Libraries serving faculty and students in educational institutions which provide instruction beyond the high school level: may include libraries in colleges, universities, vocational, graduate, and postgraduate schools.

6. *School Library.* A center specifically designed or adapted for study and reading, and for the custody, circulation, and administration of a collection of materials for the use of the student body, faculty, and school administration of a secondary or lower level school.

7. *Special or Technical Library.* A library organized primarily to support the mission of the agency with library and information services.

8. *Information Center.* A center for acquiring, storing, retrieving, and disseminating information. Information should be distinguished from information materials.

9. *Information Analysis Center.* An information center which synthesizes, analyzes, and evaluates information and finally creates new information through this process.

10. *Data Center.* An information center concerned primarily with numeric and quantitative information.

11. *Data Analysis Center.* Similar to an information analysis center but working with numeric and quantitative data.

(These definitions depart to some extent from the wording of the standards of the U.S.A. Standards Institute (USASI) but are compatible with them. They are used in this form for this paper for the sake of brevity and clarity.)

*The substance of this article was presented to the Federal Library Committee at its March 26 and September 24, 1969, meetings, where it was endorsed in principle.

Governing Factors: Statistical reporting on Federal libraries presents problems which will affect any program of collecting, compiling, and publishing. These problems and their solutions are presented in this proposal.

There are variant trends which must be considered if their statistics are to have meaning. The first of these trends is that the distinction between types of libraries is disappearing and the old definitions of public, school, academic, and special libraries will not apply in the future. The camp and post libraries which for long have been considered to be equivalent of public libraries, have changed in the last 5 to 10 years, taking on many aspects of academic libraries, giving direct planned support to academic programs of the camp or base. Staff work for libraries in the Air Force combines both base and special libraries in a single office. There is an increasing recognition within the U.S. Department of Defense of the need to pull information services together. This is offset by the usual centrifugal forces which feel the need to retain control of each unit within the local facility which it serves. At present, it would seem there are enough combinations existing to throw the statistics askew and to raise questions as to whether statistics from camp and post libraries should be reported with public library statistics, and whether other Federal library statistics should be included with their counterparts outside the Government.

The Veterans Administration is working toward the establishment of media centers which will combine within a single service area libraries, patients' records, pathology slides, telecommunication facilities with medlars, etc. The patients' libraries are so closely allied with the technical medical libraries that it will be impossible to disentangle them statistically.

This situation is described as an example of a trend which is apparent in many Government agencies. The consideration of all information support activities as a correlated program is becoming more prevalent. The program which was formerly called Army Technical Library Improvement Studies (ATLIS) is now called Technical Information Support Activities Project (TISAP). It will include studies of libraries, information centers, and information analysis centers.

Whether these developments within the Government are different enough from similar trends outside to warrant the segregation of Federal library statistics from other national statistics of libraries is a question which must be resolved. It is suggested that the Statistics Coordinating Committee of ALA and the National Center for Educational Statistics of USOE direct attention to this question at an early date, taking into account other factors which affect such a decision, for example:

1. The distribution of Federal libraries which is worldwide and thus not easily fitted into a pattern of collection through State agencies.

2. The isolation of Federal libraries from participation in regular local programs.

3. The existence of national libraries which, in addition to serving the Federal Government, are similar in some respects to some of the larger State libraries.

Implementation: For the reasons discussed earlier, the Federal Government must have direct responsibility for collecting statistics of Federal libraries and information centers. These statistics should be coded to provide a geographical breakdown so that States will be able to have some measure of the total library resources within their borders.

Although a final determination will be made as a result of the testing program of the Federal Library Committee's Sub-Committee on Statistics, the following management data will be required from each Federal library:

1. Resources—volumes, serial titles, technical reports, microforms, maps, etc.

2. Expenditures—total, salaries, materials, binding, other

3. Staff—positions by series and grade.

Data on services rendered are so susceptible of misinterpretation and error in reporting that it is not recommended that any attempt be made to collect quantitative statistics in this field for the present.

Data on users are also susceptible of misinterpretation and error in reporting. Such figures as population served, number of users, number of circulations, number of reference questions, characteristics of population served, etc., can be more adequately reported through special studies which carefully define terms and which are conducted with onsite studies by experts.

Other information about Federal libraries such as physical facilities, location, network facilities, automation,

etc., should be the subject of special studies before recurring statistical programs are designed. In many cases, such information (if susceptible of statistical interpretation) could be collected at intervals of 2 to 5 years instead of annually.

Some Federal agencies may wish to collect more data for their own internal use than is required for a nationwide program. It is expected, also, that the agencies will be more effective in requiring reports from their own libraries than an outside agency would be. Therefore, it is recommended that administration of the questionnaires be delegated to the agencies with the understanding that they will collect as a minimum the data required for the overall Federal program.

The National Center for Education Statistics is the logical processing and storage center for Federal library statistics. However, if the overall statistical program for libraries is centered elsewhere, arrangements should be made for exchange of data or for a contract to administer the program.

The FLC Sub-Committee on Statistics is developing a questionnaire based upon that used for the *Survey of Special Libraries Serving the Federal Government.* This will be tested with a small sample representing each type of Federal Library. In the meantime, the existing list of Federal libraries will be sent to the agencies for correction and verification. It is expected that before the end of fiscal year 1970, the revised questionnaire will have been supplied each Federal agency so that it may be prepared to provide the required data for fiscal year 1971 and thereafter.

Appendix C

Other Background Papers

1. "Needed Library Statistics" as reported to the American Library Association Executive Board by the Divisions: A summary and appraisal (G. Flint Purdy, October 3, 1960)

2. A Proposal for a Survey of Library Statistics (G. Flint Purdy, ALA Midwinter, 1962)

3. Status of Library Statistics Publications, 1970 (Frank L. Schick)

"NEEDED LIBRARY STATISTICS" AS REPORTED TO THE AMERICAN LIBRARY ASSOCIATION EXECUTIVE BOARD BY THE DIVISIONS

A Summary and Appraisal by G. Flint Purdy
for the Statistics Coordinating Committee of the LAD
Section on Library Organization and Management

October 3, 1960

In its report of November 15, 1959, the Federal Relations Committee of the American Library Association (ALA) recommended:

> That the Executive Board immediately request the Office of Education to provide funds to enable the Library Services Branch to put in full operation its program to collect statistical and other data important to the development and operation of libraries. This Committee further suggests that each division of ALA indicate by May 15 the kinds of statistics which it believes necessary and which can be assembled on a national basis.

Under date of January 13, 1960, Mr. Clift wrote to the presidents of the ALA divisions, in part as follows:

> I am enclosing a copy of a Report made to the ALA Executive Board by the Federal Relations Committee. The Report was accepted by the Board and I was directed to transmit certain of the recommendations to the divisions and to invite your cooperation and assistance.
>
> The attention of all divisions is called to recommendation 7 on page 2 which asks that "each division of ALA indicate by May 15, 1960, the kinds of statistics which they believe necessary and which can be assembled on a national basis."

On June 8, 1960, Miss Timmerman transmitted to David C. Weber, Chairman of the Statistics Coordinating Committee of the Library Administration Division (LAD) Section on Library Organization and Management "the materials prepared by eight units which (had) complied with the request up to (that) time," with a request that the Statistics Coordinating Committee "analyze the reports received... and prepare a report for the ALA Executive Board" for its fall meeting. At the Montreal meeting Mr. Weber assigned this task to the undersigned.

The reports of the "eight units" are summarized later with my brief comment on their content and contribution.

Throughout this report, I use the word "statistics" in its traditional (among librarians) and admittedly imprecise sense, to denote quantitative and sometimes nonquantitative facts descriptive of aspects and characteristics of libraries, library personnel, and library service. This usage is not universally accepted, but librarians, at least, nearly always mean this when they speak of "library statistics." The word "data" would be more generally accepted.

What consumers of library statistics want, quite clearly, are facts which can be classified, analyzed, and compared (in time and space), and which are useful as bases for induction, inference, and generalization. The Report of the Federal Relations Committee (November 15, 1959) uses the phrase "statistical and other data important to the development and operation of libraries."

In order to plan an optimum statistics program, we need answers to such questions as the following:

1. What facts are needed, by whom, for what specific purposes? This question implies that different consumers need different facts for different purposes, and hence, among other things, that needed facts about school libraries, for example, may be very different from needed facts about public libraries.

2. How frequently is each fact needed and how "fresh" must it be to serve its purposes?

3. What is the relative importance of the aggregate need for each needed fact? What is the importance of recency and frequency?

4. Which of the needed facts are known or can be known and can be collected in useful form? "Useful form" implies a degree of standardization.

5. To what extent can standardization of terminology and reporting be achieved? How?

The communications from the divisions, herein under discussion, are not very helpful. They suggest facts for collection and distribution, but they leave unanswered most of the questions stated above. Their contribution is toward an answer to the first two parts of the first question. Reasonably comprehensive lists of needed facts were submitted by the American Association of School Libraries and The Association of College and Research Libraries (their 1958-59 questionnaire plus suggested additions).

The LAD report is in the form of suggestions from officers of its sections and committees. Only Mr. Weber, as chairman of the Statistics Coordinating Committee, submitted a somewhat comprehensive list, in the form of his Committee's draft "Guide to Statistical Compilations." Mr. Gitler lists needed facts pertaining to programs of education for librarianship. Mrs. Stevenson submits for consideration the 1958 tabulation "Public Library Film Statistics." The other three reports (from the ASD, the RTSD and RSD), obviously composed in haste, suggest new facts but make no pretense at comprehensiveness.

Herewith a summary of the eight reports, followed by my own recommendations.

Adult Services Division

Letter from Elizabeth Hage to Eleanor Phinney, suggesting a few *additions* to the facts traditionally collected, and suggesting that "there should be a tie-in between the statistics we seek and the standards we are trying to attain (as printed in Public Library Service)." The new facts specifically proposed for collection are suggested by points 4, 5 and 6 on page 4 of *Public Library Service.* They are directed at measurement, and presumably evaluation, of libraries' "guidance to individuals ...," "assistance to ... organizations ...," and "stimulation of use and interpretation of materials." Miss Hage enclosed a copy of a New York Public Library report form to illustrate specifically the kinds of new information which she recommends for collection and publication.

Miss Hage's report is useful for the new facts proposed and for her valid and important point with respect to relating statistics to goals and standards.

American Association of School Libraries

Detailed and excellent list of "Kinds of Statistics Needed" submitted by Eleanor E. Ahlers on May 18, 1960. The list included some 66 questions, many of them compound. The list would constitute an excellent basis for circularizing consumers of school library "statistics" to determine priorities and frequencies.

It is clear that the facts about school libraries which are needed are largely peculiar to school libraries. The list has relatively little in common with those which are pertinent to the needs of consumers of public library statistics or of college or university library statistics.

Association of College and Research Libraries

(Unsigned one-page (double-spaced) report headed "ACRL and Statistics")

"Though the present college and university library statistics cover the major items which can be effectively and regularly reported, there are still important statistics which are not included in them. In addition, thorough and expert analytical treatment of the present statistics is sorely needed. Specifically needed are:

> A compilation of data relating to buildings . . .
> A projection of personnel needs[1]
> A . . . compilation of fringe benefits. . .
> A record of nonbook materials in libraries."

The response from the Association of College and Research Libraries (ACRL) thus gives us a list of facts "needed." ACRL experience in collecting and using statistics will be extremely useful in formulating a program for all types of libraries.

Library Administration Division

The LAD requested statements from its committees and sections. Responses were imcomplete and uneven. They

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[1] The Library Services Branch has included in its 1959-60 collection: "26. Number of budgeted professional positions ... vacant on September 1, 1960."

suggest a need for data normally collected from all types of libraries, plus some additional facts, such as: construction cost data; facts concerning inservice training; fringe benefits; facts relating to public relations programs; data on vacancies, present and projected; facts concerning library education programs; facts relevant to recruiting activities; facts concerning the physical facilities, the "materials center" concept of school libraries; etc.

It is clear that facts are wanted which have not been collected traditionally. Many of them suggest special studies rather than collection at regular intervals. Others should be considered for inclusion in periodic collections. The suggestions need to be studied systematically to fit them into a program. Who needs these facts? For what purposes? How frequently? How can they be standardized? Can they be had? Who should collect them and how? How should they be interpreted and published?

Resources and Technical Services Division

(Letter from John Fall to Mr. Clift, dated April 4, 1960.)

Fall says: "We are, even among ourselves, not in agreement as to the appropriateness of the statistics to be reported ... Our differences arise, in part, from ... the types of libraries ... and our feelings about the validity of some statistics.

"Before action is taken ... it is my hope that DEFINITIONS AND CONTROLS, and the need and purpose for the statistics, will be fully established."

He then lists seven facts (in most cases with subdivisions) which he believes "we would agree ... might be useful if clearly defined and if released promptly...."

"As a final work ... these are not recommendations. It is my view that *considerable work needs to be done and agreement achieved before libraries are asked to report on their statistics*[2] in the Resources and Technical Services fields."

Mr. Fall's contribution is a highly intelligent one. I agree with him completely in his statements with respect to "need and purpose," "definitions and controls," and "that considerable work needs to be done before. . . ."

[2] Italics mine. (G.F.P.)

Reference Services Division

(Report of a special committee on statistics, signed by Henry J. Dubester and Mary N. Barton, Chairman.)

Summary:

1. Usefulness of statistics . . . must be of primary concern. "We must determine our informational needs and on this basis determine the kinds of statistics that may lead to such information in a reasonably accurate way."

   Usefulness "at both the national and operational levels ...."

2. Problems of definition, interpretation, "and the many intangibles involved in each reference question...." ... lead "to inaccurate statistics with little comparative validity on a national basis, though with considerable usefulness at the operational level."

3. LSB organization of its statistical activities, budgets, questionnaire design—practical questions.

Recommendations:

1. USOE continue to collect them as they have.

2. RSD Committee (special) "study of the whole problem of reference statistics in order to set up criteria for certain kinds of statistical information which will be valid and useful at both the national and local levels and which will aid in the development of helpful standards."

My comment:

The kind of study suggested, applied to statistics for all kinds of libraries and all phases of library work, is obviously long overdue. The Dubester-Barton report is an excellent statement of the problem.

Library Education Division

(Letter from Mr. Gitler as Secretary of the ALA Committee on Accreditation, but "not for the Committee")

Mr. Gitler lists needed facts concerning library schools and library science programs: enrollment, degrees,

faculty, teaching load, graduates, etc.—obviously useful information, though a little different from what we normally mean by "library statistics." This kind of information should be collected and distributed by some agency.

Grace Stevenson to Dave Clift

(Memo dated March 25, 1960, regarding statistics on film use.)

She says: "For 8 years, this office has compiled statistics on film use in public libraries." The tables which she submitted report by library: Population served; library income per capita; number of prints in collection; total spot and short-term bookings; school service; showings (subdivided by: library-sponsored, home use, school, community groups); total audience; and, total expenditure for procuring films.

Clearly there is a need to disseminate facts about libraries' nonbook resources and services. There is something to be said, I think, for continued separate collection and distribution of these data. I am not sure how much of our total need we can expect the Library Services Branch to satisfy. Mrs. Stevenson's memorandum suggests many questions which, I think, we are not ready to answer.

Conclusions and Recommendations

In Mr. Falls' words," ... considerable work needs to be done and agreement achieved before we will be ready to recommend a sound, comprehensive library statistics program"—a "master plan," if you will. I think such a master plan is urgently needed and can be formulated, by some such approach as the following:

1. Compile comprehensive lists of data thought to be needed by the consumers of library statistics—a separate list for each type of library. The ALA Statistics Committee compiled such lists in 1946 for public libraries, college and university libraries, and school libraries, at least.

   The 1946 lists would constitute a useful point of departure for developing new lists. The Library Services Branch is now compiling lists of all statistics currently collected in the United States. Preparation of appropriate lists would not be difficult.

2. Send copies of the above suggested lists to small samples of the consumers and compilers of statistics for each type of library for suggested changes. Revise lists.

3. By means of interviews with and circularization of consumers and compilers of statistics for each type of library, ascertain:

   a. The specific uses, actual and potential, of the facts listed;

   b. The judgment of the interviewees and correspondents with respect to *priorities* of statistics listed—i.e., degrees of importance; reasons;

   c. Judgment with respect to necessary frequency of collection and publication—annual, quinquennial, "one-shot," other—also necessary degree of speed in distribution;

   d. Definitions in use and preferred;

   e. Judgment with respect to practicability of recording and reporting each "statistic" in useful form; methodological suggestions.

4. Compile results of step 3 and assign priorities frequencies, standards for promptness of distribution, taking into account, practicability, present and foreseeable.

5. Formulate definitions—"standards" if you prefer the latter term.

6. Check the tentative decisions arrived at in steps 4 and 5 with, ideally, all interested parties; amend as required.

7. Decide what data should be collected, at what intervals, by whom, in what form; how analyzed and how and by whom published—i.e., formulate the "master plan," presumably for ALA adoption and prosecution.

This procedure for arriving at a statistics program would require at least one full-time person with secretarial assistance for a period of several months, plus provision for a paid consultant, or consultants, and a very carefully selected advisory committee. It would also require a substantial budget for travel and supplies. I would *guess* the necessary minimum budget at $15,000, but it might take more. (estimate much too low. G.F.P.)

The first "director" of such a "study" to come to my mind is Ed Wight, though I know nothing of his availability—and he may not be the best qualified person. I am not sure whether the director should necessarily be a librarian, or a statistician in the broad professional sense of that term.

It would seem to me that such a project ought to be saleable to a foundation, but I have little evidence on which to base this judgment.

It must be clear that the above-outlined proposal for an approach to an overall program for library statistics is strictly my own—not because I claim proprietorship, but because I would not want it thought to represent any kind of consensus. I have discussed it only with Frank Schick of the Library Services Branch, who, at first glance, professed to like it. I am very sure that some such systematic approach to a professional consensus is a very necessary prerequisite to a master plan.

A PROPOSAL FOR A SURVEY OF LIBRARY STATISTICS[1]

by G. Flint Purdy

Facts about libraries, librarians, and library service are indispensable raw materials for constructive professional thought. Some of the ingredients of librarianship are measurable, and hence can be expressed as "statistics." Such quantitative facts, if bona fide, offer certain advantages as bases for induction, inference, generalization, and action.

Librarians have long been deeply concerned about the state of measurement in librarianship. They lack and desperately need reliable data which permit valid comparison and generalization. Within the last few months, and almost simultaneously, three major organizations of librarians, the American Library Association, the Special Libraries Association and the Pacific Northwest Library Association, have independently proposed similar surveys which were intended to contribute to a solution of this problem. At the Cleveland conference, the three organizations agreed to combine their three proposals into one. This is it.

The ultimate purpose of this proposal is, of course, the improvement of library service. We assume that understanding will lead to improvement, that facts are essential to understanding, that quantitative facts, if relevant and accurate, are particularly useful, that the quantitative data to which we have heretofore had access are seriously deficient, and that the study herewith proposed will result in their significant improvement.

The immediate purpose of the survey is to design a national plan (a) to standardize library statistics, (b) to coordinate existing statistical activities of the Library Services Branch of the U.S. Office of Education with those of other agencies and thus to reduce duplication and effect more adequate coverage, and (c) to promote more adequate analysis, interpretation, and dissemination of information about libraries and library service.

Librarianship is a retarded profession in its use of measurement as a tool for evaluation, understanding, and improvement. We have always recognized, in general terms, that measurement ought to reduce guess-work and speculation. We have attempted on a national scale, since 1870, to measure some of the measurable ingredients of librarianship, and to use our measurements for evaluation and improvement. Nor have our efforts been entirely unsuccessful. Without these attempts at measurement, the development of library service in America would have been very materially retarded. "Regardless of whether a library is supported from public or private funds each must render an account of its services, point out its limitations and recommend improvements. These recommendations are most frequently made on a comparative basis with agencies of similar functions and serving a clientele of comparable size or specific need."[2] Equally important is the development of a body of reliable quantitative data to support research, depict trends, permit planning, and promote public understanding. But (let's face it) we have not always been entirely intellectually honest in our use of measurement in librarianship—and we certainly have not been intellectually sophisticated. Improvement requires *standardization, coordination,* and systematic *interpretation.*

By "standardization," we mean the attainment of working degree of uniformity in nomenclature and usage, so that facts may be honestly compared in time and space and so that generalization may be logical and defensible. We have recognized this need since 1876, at least, and have made little progress toward its solution. We do not even agree on what constitutes a "volume." A major purpose of this proposal is to achieve a consensus with respect to definitions and usage, within each relevant category of libraries.

Facts about libraries are collected, regularly or irregularly, by the Library Services Branch of the United States Office of Education, by professional organizations at various levels, by State library administrative agencies, by individual libraries and librarians, by commercial firms, etc. The result approaches chaos. Definitions vary; work is endlessly duplicated; individual libraries respond by keeping parallel records to meet varying requirements, or by pursuing each its own independent variant practice. The second major purpose of this proposal is *to coordinate* fact-gathering, analysis, interpretation, and publication—to reduce waste, to

[1] This proposal led to the ALA Library Statistics Coordinating Project of 1963-64.

[2] From a letter from Miss Eloise Ebert, State Librarian of Oregon, to G. F. Purdy, dated August 16, 1961.

improve coverage, and to promote standardization and more adequate interpretation.

Deficiencies in the interpretation and utilization of library statistics are partly a result of the questionable character of the data to which we have had access, and partly a consequence of the nature, training, interests, and schedules of librarians. This proposal envisages a coordinated system of agencies to collect, analyze, interpret and publish statistical data and to advise individual librarians, administrators, and legislators with respect to analyses and conclusions.

We are empathically and firmly convinced that a systematic attack on these problems is an urgent need of our profession, and long overdue. We believe that the survey approach which we propose will reveal (and promote) a degree of consensus which will greatly advance the achievement of our three objectives. The librarians and library organizations consulted are virtually unanimous in their enthusiastic concurrence and support.

The original ALA proposal was for a *national* survey of producers and consumers of library statistics to determine: (a) the specific important uses of library statistics (potential as well as actual), (b) consensus and variation in definitions and usage, (c) priorities of facts needed, and (d) the importance of "up-to-dateness" in each needed fact in relation to the purposes which it serves. Out of this survey was to be developed a national "master plan" to incorporate realistic recommendations with respect to (1) what facts should be collected, for what purposes, by whom, how frequently; (2) standardization of definitions; and (3) analysis, interpretation, and publication (by whom, how frequently, how promptly).

The only changes in the present combined proposal are (a) to include special libraries, (b) to restrict the geographical coverage of the intensive survey to a region, namely, that covered by the Pacific Northwest Library Association, minus British Columbia and plus California[3], and consequently (c) to reduce the aggregate cost from approximately $140,000 to $50,000. Conclusions would be checked with samples of libraries in other regions. The reason for the proposed restriction is purely budgetary. The Pacific Northwest is suggested because the Pacific Northwest Library Association enthusiastically desires and requests that its area (as amended) constitute the focus of the survey staff, thus assuring the survey of active cooperation and support, and because we believe that region to be as appropriate as any with respect to the facts which we seek.

We believe that the idea of regional concentration with national verification or emendation is a sound one, quite apart from budget considerations. Furthermore, adoption of the regional approach enables us to consolidate into one proposal the three earlier separate proposals.

It is therefore now proposed that a survey of library statistics, directed toward the formulation of a national plan, be conducted by the ALA, in cooperation with SLA and the PNLA, in the Pacific Northwest (as previously defined) to consist approximately of the following steps:[4]

1. Compile preliminary lists of basic quantitative data conceived to be relevant to the ultimate purposes of statistics in public, academic, school, and special libraries, using as one point of departure the lists of "Library Statistics Recommended by Conferees for Collection by the U.S. Office of Education" in 1946 and incorporated in the *Tentative Report of the Conference on Library Statistics* (March 4-5, 1946), Washington, U.S. Office of Education, 1946 (MS).[5]

2. By means of interviews and correspondence with samples of consumers and producers of statistics for each category of library:

   a. Tabulate and classify specific uses (actual and potential) of each quantitative fact for each type of library, using the preliminary lists as check lists;

   b. Assign tentative priorities to facts needed;

   c. Ascertain required frequency of collection and need of prompt availability;

[3] The following States to be covered: Washington, Idaho, Oregon, California, and Montana.

[4] The procedure here suggested should not be conceived as rigidly to bind the survey Staff and its Policy Committee to these and only these steps.

[5] Also highly relevant and useful are: *Statistics of Libraries: An Annotated Bibliography of Recurring Surveys,* compiled by John Carson Rather, Washington, U.S. Office of Education, 1961 (OE-15022); *Definitions for Library Statistics:* a Preliminary Draft, prepared by the LAD Statistics Coordinating Committee under the Chairmanship of David C. Weber, Chicago, ALA, 1961; and a list of "basic data items" compiled by the Library Services Branch.

d. Record definitions of facts used, reasons for definitions, degree of flexibility with respect to acceptance of alternate definitions;

e. Ascertain practicability of accurate, uniform recording and reporting of needed facts.

3. Formulate a revised list of facts for each type of library, with proposals for definitions, use, frequency, and promptness; send the lists to samples of "consumers and producers," in the Pacific Northwest and in other regions, for criticism.

4. Formulate the proposed "national plan," to incorporate recommendations with respect to what data should be collected, at what intervals, by whom; how defined, how analyzed and how and by whom published.

It must be recognized and acknowledged that subsequent steps will be required to implement the national plan, and to revise and expand it in the light of experience with it. Most important and most difficult will be the problem of achieving effectively universal compliance. This may require meetings, travel, and somebody's time. It is probable, therefore, that a followup proposal, a "second phase" if you will, may be presented upon completion of the survey here proposed.

Mechanics of the Survey

1. The Survey will be administered by the Library Administration Division of ALA.

2. The Statistics Coordinating Committee of the Library Organization and Management Section of the Library Administration Division of the ALA, with the addition of one representative of the SLA and one from PNLA, will be designated the Policy Committee of the Survey.

3. The Survey staff will consist of a Director and a Secretary for 12 months, three specialists in the three major categories of librarianship (other than that represented by the Director) for a total of 3 months each, a statistician on a consultant basis, and a limited amount of additional clerical assistance.

4. The Executive Secretary of the LAD will maintain liaison between the ALA Headquarters and the Survey staff.

Tentative Time Schedule

Two months for literature survey, compilation of checklists and detailed planning.

Two months for interviews.

Five months for tabulation, compilation, followup.

Three months for formulation of the "master plan."

STATUS OF LIBRARY STATISTICS PUBLICATIONS, 1970

by Frank L. Schick

The latest statistics publications of national coverage, by major category of library, are appended as a convenient checklist, and are reprinted, in part, with the permission of the R.R. Bowker Company.

A. SCHOOL LIBRARY STATISTICS

1. *Latest U.S. Office of Education publications:*

   a. Comprehensive survey: Statistics of Public School Libraries 1960-61.

      Part I. Basic Tables, by Mary Helen Mahar and Doris C. Holladay, 1964. OE-15049.

      Part II. Analysis and Interpretation, by Mary Helen Mahar, 1965. OE-15056.

   b. Brief survey: Public School Library Statistics, 1962-63, by Richard L. Darling, 1964. OE-15020-63.

B. COLLEGE AND UNIVERSITY LIBRARY STATISTICS

1. *Latest U.S. Office of Education publications:*

   a. Library Statistics of Colleges and Universities: Data for Individual Institutions, Fall 1967, by Bronson Price. June 1969. OE-15023-67.

   b. Library Statistics of Colleges and Universities: Data for individual Institutions, Fall 1968, by Joel Williams. February 1969. OE-15023-68.

2. *In preparation by the U.S. Office of Education:*

   a. Library Statistics of Colleges and Universities: Data for Individual Institutions, Fall 1969 (to be published in 1970).

   b. Library Statistics of Colleges and Universities: Analytic Report, Fall 1969 (to be published in 1970).

3. *Previous ALA publication:*

   Statistics of College and University Libraries: Data for Individual Institutions, 1965-66. Prepared by the Library Administration Division, American Library Association, in cooperation with the University of Wisconsin at Milwaukee, School of Library and Information Science, 1967.

4. *Published elsewhere:*

   a. The Past and Likely Future of 58 Research Libraries, 1951-1980: A Statistical Study of Growth and Change, by O.C. Dunn, W.F. Seibert, J.A. Scheuneman. Purdue University, University Libraries and Audio-Visual Center, Lafayette, Indiana, (1967).

   b. Manpower and Materials (for College and University Libraries), by Frank L. Schick. *Library Journal* 92:2311-12, June 15, 1967.

   c. Selected Statistics for Representative Private Liberal Arts Colleges 1966-67, by Richard B. Harwell. *AB Bookman's Weekly* 40:2255, December 18-25, 1967.

   d. ARL Statistics, fiscal 1966-67. *AB Bookman's Weekly* 41:484, February 5-12, 1968.

   e. The ARL Academic Library Statistics, 1968-69 have been tabulated: distribution to the membership is expected by December 15, 1969.

   f. Schiller, A.R. Academic Librarians' Salaries, *College and Research Libraries* 30:101-111, March 1969.

   g. University Library Statistics (assembled by Robert Downs for the joint ARL/ACRL Committee on University Library Standards, printed by Association of Research Libraries).

C. PUBLIC LIBRARY STATISTICS

1. *Latest U.S. Office of Education publications:*

   a. Federal Government and Public Libraries: A Ten-Year Partnership, 1957-1966, by John C. Frantz and Nathan M. Cohen. *HEW Indicators,* July 1966.

   b. Statistics of Public Libraries Serving Communities with at least 25,000 Inhabitants, Fiscal Year 1965. OE-15068. October 1968.

2. *In preparation by the U.S. Office of Education:*

   Statistics of Public Libraries Serving Communities with at least 25,000 Inhabitants, Fiscal Year 1968.

3. *Published elsewhere:*

   a. Statistics of Public Libraries, 1962. Part II, Selected Statistics of Public Libraries Serving Populations of less than 35,000. Institutional Data. Urbana, Illinois, University of Illinois, Graduate School of Library Science, 1967.

   b. Indexes of American Public Library Statistics. *ALA Bulletin,* 62:492, May 1968.

   c. Indexes of American Public Library Statistics, *ALA Bulletin,* 63:556, May 1969.

D. STATE LIBRARY AGENCY STATISTICS:

1. *Latest U.S. Office of Education publications:*

   State Plans under the Library Services Act: A Progress Report, the First Five Years, 1957-61. Supplement 3, 1963. OE-15012-61.

2. Published elsewhere:

   Library Statistics and State Agencies: A Comparative Study of Three States (Illinois, Indiana and Missouri), by James Krikelas. Springfield, Illinois, Illinois State Library, 1968.

E. SPECIAL LIBRARY STATISTICS

1. *Latest U.S. Office of Education publications:*

   a. Survey of Special Libraries Serving State Governments, 1963-64, by Robert J. Havelik. Washington, D. C., Office of Education, January 1967. Microfiche edition distributed by National Cash Register Company, Bethesda, Maryland. (B-51-R 452).

   b. Survey of Special Libraries Serving the Federal Government, (1965-66), by Frank L. Schick and Paul Howard. July 1968. OE-15067.

2. *Published by the Special Libraries Association:*

   a. A Study of 1967 Annual Salaries of Members of the Special Libraries Association. *Special Libraries,* 58:217-254, April 1967.

   b. A series of articles on statistical topics of special libraries. *Special Libraries,* 58:686-702, December 1968.

   c. Herner, S., Meaningful Statistics. In *Practical Problems of Library Automation,* Special Libraries Association, Washington, D.C. Chapter, Documentation Group, 1967, pp. 47-52.

   d. Pizer, I.H., and Cain, A.M., Objective Tests of Library Performance. *Special Libraries,* 59:704-11, November 1968.

3. *Published by the Medical Library Association:*

   a. Library Statistics of Schools in the Health Sciences, Part II. *Bulletin of the Medical Library Association,* 55:178-190, April 1967.

   b. Library Statistics of Veterinary Schools in the U.S. and Canada. *Bulletin of the Medical Library Association,* 55:201-206, April 1967.

   c. Health Science Libraries of National, State, and Local Medical Organizations. *Bulletin of the Medical Library Association,* 55:191-200, April 1967.

4. *In preparation:*

   a. Health Science Libraries:

      i. Library Statistics of Hospital Libraries. (This study, started in Spring 1968 by the American Hospital Association, should be completed and made available in 1970.)

      ii. Educational Needs in Health Sciences Librarianship. A study financed by the National Institutes of Health — National Library of Medicine, conducted by David Kronick, University of Texas Medical School Library, and Alan M. Rees, School of Library Science, Case Western Reserve University. (To be released in 1970.)

      iii. Health Sciences Library Statistics. (A three-phase study covering all U.S. health science libraries, financed by the National Institutes of Health — National Library of Medicine, is being conducted under the direction of Susan Crawford, Chairman,

Committee on Surveys and Statistics, the Medical Library Association, and a survey team of the School of Library and Information Science, University of Wisconsin-Milwaukee. First two publications to be issued in 1970 will be a *National Directory of Health Science Libraries in the U.S.*, and an analytic report of *Health Science Libraries, Their Resources, Physical Facilities, and Personnel.)*

b. Law Libraries:

i. Statistical Survey of American and Canadian Law Libraries, 1968-69. (First nationwide study of about 1,500 law libraries was conducted by the Statistics Committee of the American Association of Law Libraries, John F. Whelan, Chairman, in cooperation with the George Washington University Computer-in-Law Center. Initial survey was completed in June 1969 and is being reevaluated prior to publication by the Association. For further information, contact William Stern, President, AALS, Los Angeles County Law Library, Los Angeles, California.)

ii. *See also:* Schick, Frank L., The Century Gap of Law Library Statistics. *Law Library Journal,* 61:1-6, February 1968; 61:285, August 1968.

F. LIBRARY AND INFORMATION SCIENCE EDUCATION STATISTICS

1. *Latest U.S. Office of Education publications:*

a. Library Education Directory 1964-65, by Sarah R. Reed, 1965. OE-15046-65.

b. Survey of Library Education Programs, Fall 1964, by Sarah R. Reed. (Mimeographed release, issued in December 1965.)

2. *Published elsewhere:*

For other studies concerning library and information science education statistics see the chapter *Library Education and Manpower* in this report.

G. LIBRARY MANPOWER STATISTICS:

1. *Latest U.S. Office of Education publication:*

Library Manpower: Occupational Characteristics of Public and School Librarians, by Henry T. Drennan and Richard L. Darling, December 1966. OE-15061.

2. *Published elsewhere:*

For other studies concerning library manpower statistics see the paper "Library Education and Manpower" in this report.

H. OTHER STATISTICAL SOURCES RELATING TO LIBRARIES:

1. *Latest U.S. Office of Education publications:*

a. Digest of Educational Statistics, 1968 edition, by Kenneth A. Simon and W. Vance Grant, 1968. OE-10024-68.

b. Projections of Educational Statistics to 1977-78, 1968 edition, by Kenneth A. Simon and Marie G. Fullam, 1969. OE-10030-68

2. *Publications of the American Library Association:*

a. Library Statistics: A Handbook of Concepts, Definitions and Terminology, Joel Williams, editor. Chicago, American Library Association, 1966.

b. National Conference on Library Statistics: Proceedings. Chicago, American Library Association, 1967.

c. The Use of Data Processing Equipment by Libraries and Information Centers. Special Libraries Association, Documentation Division. Chicago, American Library Association, Library Technology Program, 1966.

3. *Published elsewhere:*

a. Public Libraries in the United States of America: Special Report, Washington, D.C. 1876. Reprint of the 1876 Report. Urbana, Illinois, University of Illinois Graduate Library School, 1967.

b. U. S. A. Standard for Library Statistics, prepared by Subcommittee 7 of U. S. A. Standards Committee Z39. New York, U. S. A. Standards Institute, 1969.

c. U. S. A. Standard for Compiling Book Publishing Statistics, prepared by Subcommittee 18 of U. S. A. Standards Committee Z39. New York, U. S. A. Standards Institute, 1969.

d. On Library Statistics, *Mathematica,* August 1967. (45 p. ERIC Document Reproduction Service, L1 000370)

e. On the Economics of Library Operations, *Mathematica,* June 1967. (168 p. ERIC Document Reproduction Service, L1 001031)

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